UTAH OIL AND GAS CONVERSATION COMMISSION

REMARKS WELL LOG ELECTRIC LOGS FILE X WATER SANDS LOCATION INSPEC SUB. REPORT/abd

990203 Sta - Fed Land Exchange; Well now on Fed Land; Lease from Sta ML-45298!

DATE FILED OCTOBER 1, 1998

LAND: FEE & PATENTED STATE LEASE NO. ~~ML 45298~~ UTU78085 PUBLIC LEASE NO. INDIAN

DRILLING APPROVED: NOVEMBER 3, 1998

SPUDDED IN:

COMPLETED: PUT TO PRODUCING:

INITIAL PRODUCTION:

GRAVITY A.P.I.:

GOR:

PRODUCING ZONES:

TOTAL DEPTH:

WELL ELEVATION:

DATE ABANDONED: 12-6-99 LA'D

FIELD: WILDCAT

UNIT:

COUNTY: GARFIELD

WELL NO: STUDHORSE STATE 36 #1 API NO. 43-017-30142

LOCATION: 2237 FNL FT. FROM (N) (S) LINE, 1960 FEL FT. FROM (E) (W) LINE. SW NE 1/4 — 1/4 SEC. 36

TWP.	RGE.	SEC.	OPERATOR	TWP.	RGE.	SEC.	OPERATOR
				33S	7E	36	CONOCO INC.

From: "Mankin, Mike L." <MIKE.L.MANKIN@usa.conoco.com>
To: 'Chris Kierst' <nrogm.ckierst@state.ut.us>
Date: 9/15/98 7:44am
Subject: RE: Well Names

I need to amend the well names one more time, sorry. Please see changes to the original email.
Thanks
Mike

-----Original Message-----
From: Mankin, Mike L.
Sent: Tuesday, September 15, 1998 7:50 AM
To: 'Chris Kierst'
Subject: Well Names

Please make note of name changes for the wells that we staked last week.

Death Hollow State 32-#1
Section 32, T34S, R7E
Garfield County, Utah

Studhorse State 36-#1
Section 36, T33S, R7E
Garfield County, Utah

43017 30142

Thanks
Mike

Mike L. Mankin
Right of Way Agent
Right of Way and Claims

Conoco Inc.
10 Desta Drive, Suite 430E
Midland, Texas 79705
(915) 686-5794

September 15, 1998

State of Utah Department of Natural Resources
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84114-5801

Attn: Christopher J. Kierst, Oil & Gas Field Specialist

Re: **Photos of Well Sites**
Death Hollow State 32-1
Studhorse State 36-1
Garfield County, Utah

Dear Mr. Kierst:

Please find enclosed copies of photos that you requested on the wells that we conducted onsites on last week. I also provided you photos of the access to the Studhorse location.

If you have any questions, please contact me at 915-686-5794.

Sincerely,

Mike L. Mankin

cc: file

"South View"

Studhorse Stake 36-1

"North View"

Studhorse State 56-1

West View

Stallhorse State 36-1

"East View"

Studhorse State 36-1

Studhorse State 36-1

Studhorse State 36-4

Studhorse Slate F6-1

Studhorse State 36-1

Mike L. Mankin
Right of Way Agent
Right of Way and Claims

Conoco Inc.
10 Desta Drive, Suite 430E
Midland, Texas 79705
(915) 686-5794

September 29, 1998

Utah Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
P. O. Box 145801
Salt Lake City, Utah 84114-5811

Attn: Brad Hill

Re: **Application To Drill Permits**
Studhorse State 36-1, Section 36, T33S, R7E
Death Hollow State 32-1, Section 32, T34S, R7E
Garfield County, Utah

Dear Mr. Hill:

Please find enclosed completed drilling permits for the above referenced wells. Archaeological and Paleo studies have been completed and forwarded to the appropriate agencies. We conducted onsite inspections with Mr. Chris Kierest on 10/9/98. Please expedite if possible.

If you have any questions, please contact me at 915-686-5794.

Sincerely,

Mike L. Mankin

Cc: file

FORM 3

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

RECEIVED
OCT 01 1998
DIV. OF OIL, GAS & MINING

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. Lease Designation and Serial Number: ML 45298

6. If Indian, Allottee or Tribe Name:

7. Unit Agreement Name:

1A Type of Work: DRILL ☒ DEEPE ☐

B. Type of Well: OIL ☒ GAS ☐ OTHER: _____ SINGLE ZONE ☒ MULTIPLE ZONE ☐

8. Farm or Lease Name: Studhorse State 36

2. Name d Operator: **
Conoco Inc.

CONFIDENTIAL

9. Well Number: #1

3. Address nd Telephone Number:
10 Desta Dr. Ste 430E Midland, Tx. 79705-4500 (915) 686-5794

10. Field and Pool, or Wildcat: Wildcat

4. Location of Well (Footages)
At Surface: 682 591.56
2237' FNL & 1960' FEL

At Proposed Producing Zone:
2237' FNL & 1960' FEL

11. Qtr/Qtr, Section, Township, Range, Meridian:
SW4NE4
Section 36, T33S, R7E
S.L. B. & M.

14. Distance In miles and direction from nearest town or post ofice:
20 miles southeast of Boulder, Utah

12. County: Garfield

13. State: UTAH

15. Distance to nearest property or lease line (feet):	16. Number of acres in Lease	17. Number of acres assigned to the well:
1960'	640 +/-	640 +/-
18. Distance to nearest well, drilling, completed, or applied for on this lease Feet):	**19. Proposed Depth:**	**20. Rotary or Cable tools:**
N/A	6,393'	Rotary

21. Elevations (show whether DF, RT, GR etc.):
RKB: 6511' est; GL: 6498' est.

22. Approximate date work will start:
When Approved

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	9-5/8", K-55 LTC	36#	500'	282 sxs, 333 cuft
8-3/4"	7', L-80 BTC	26#	4,900'	371 sxs, 1014 cuft
6-1/8"	4-1/2", L-80 LTC	11.6#	6,393'	182 sxs, 249 cuft

DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

Conoco proposes to this well as a vertical wildcat to a depth of 6,393'.
Drilling Plan, Surface Use Plan and Hazardous Material Declaration for subject well is attached.

492649.67
4194097.94

Lease Description: Section 36, T33S, R7E, S.L.B. & M., Containing 640 acres +/-
Mineral Ownership: State of Utah
Surface Ownership: State of Utah
This well will be drilled under Conoco's Utah Statewide Bond. # 8140-60-24

24.
Name & Signature: Mike L. Mankin ** Title: Right-of-Way Agent Date: 9/28/98

(This space for State use only)

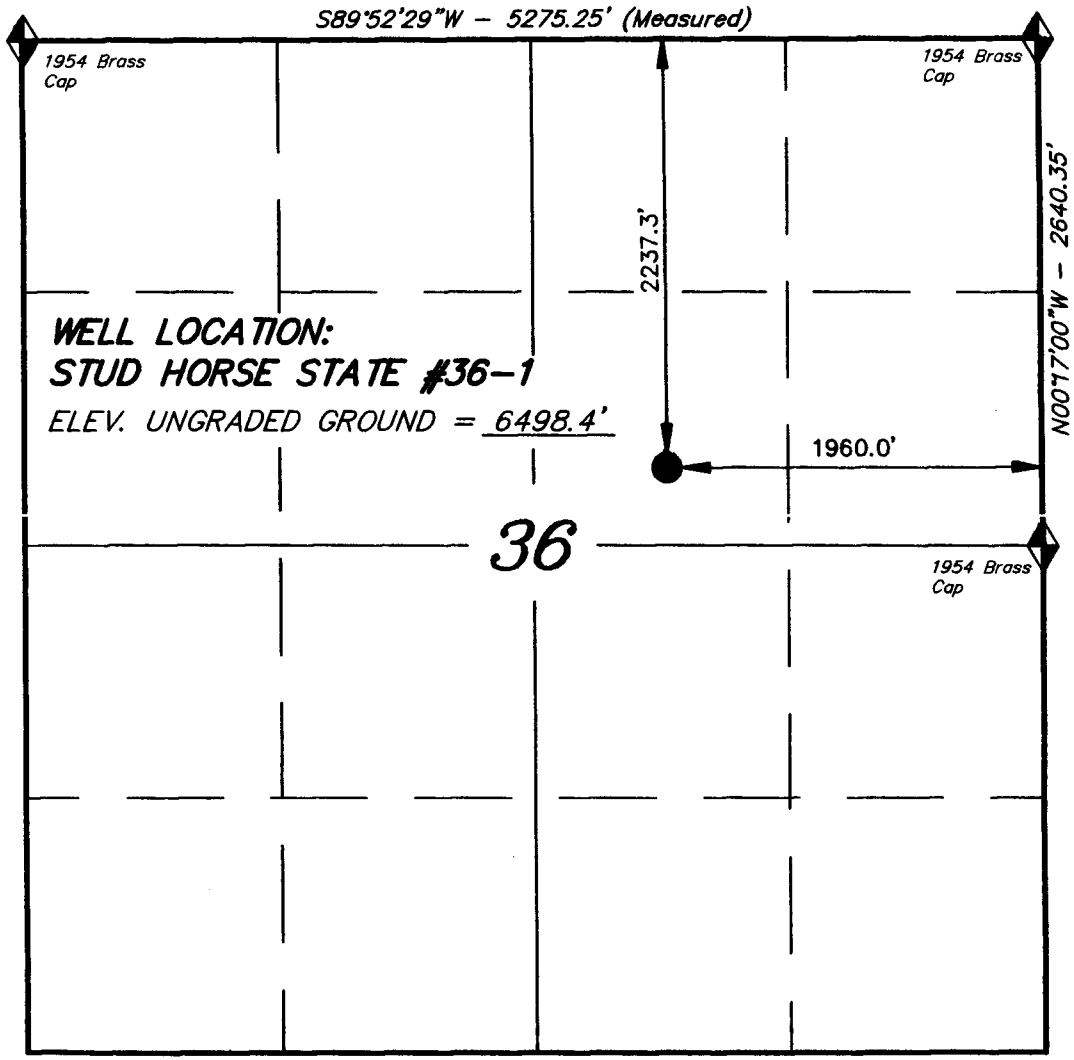
API Number Assigned: 43-017-30142

Approval: 11/3/98

UOGM(3), BRK, TJK, LAND, Ponca, Fileroom

(1\93) (See Instructions on Reverse Side)

T33S, R7E, S.L.B.&M.



♦ = SECTION CORNERS LOCATED

BASIS OF ELEV; U.S.G.S. 7-1/2 min QUAD (BITTER CREEK DIVIDE)

CONOCO, INC.

WELL LOCATION, STUD HORSE STATE #36-1, LOCATED AS SHOWN IN THE SW 1/4 NE 1/4 OF SECTION 36, T33S, R7E, S.L.B.&M. GARFIELD COUNTY, UTAH.

N

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

GENE STEWART
No. 144102
REGISTERED LAND SURVEYOR
REGISTRATION No. 144102
STATE OF UTAH
STATE OF UTAH

TRI STATE LAND SURVEYING & CONSULTING
38 WEST 100 NORTH – VERNAL, UTAH 84078
(801) 781-2501

SCALE: 1" = 1000'	SURVEYED BY: D.S.
DATE: 9-6-98	WEATHER: WARM
REVISIONS:	FILE #

STUDHORSE STATE 36–1 SECTION 36, T33S, R7E
GARFIELD COUNTY, UTAH
2237' FNL + 1960' FEL

NORTH VIEW

SOUTH VIEW

CONOCO INC.

STUDHORSE STATE 36–1 SECTION 36, T33S, R7E
GARFIELD COUNTY, UTAH
2237' FNL + 1960' FEL

EAST VIEW

WEST VIEW

CONOCO INC.

Tri-State Land Surveying Inc.

P.O. Box 533, Vernal, Utah 84078

September 28, 1998

Conoco Inc.
10 Desta Drive, Suite 430E
Midland, TX 79705-4500

Attn: Mike Mankin

Dear Mike:

The Stud Horse State #36-1 well location is staked at 2237.3' FNL and 1960.0' FEL Sec, 36, T33S, R7E, S.L.B.&M. At these footages it is not a legal location, the reason it was staked at these footages was to avoid severe topography just to the North of location.

Sincerely,

Stacy Stewart
Vice Pres, RLS

ATTACHMENT TO FORM 3-APD

LEASE NO:	ML 45298
WELL NAME & NO:	Studhorse State 36-1
LOCATION:	2237' FNL & 1960' FEL (SW4NE4), Section 36, T33S, R7E, S.L.B. & M.
COUNTY & STATE:	Garfield, Utah

HAZARDOUS MATERIAL DECLARATION FOR APPLICATION TO DRILL SUBJECT WELL

No chemical subject to reporting under SARA Title III in the amount equal to or greater than 10,000 pounds will be used, stored, produced, transported or disposed of annually in association with the drilling of this well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities will be used, produced, stored, transported or disposed of in association with the drilling of this well.

H2S DRILLING OPERATIONS PLAN

Conoco, Inc. will comply with Onshore Order No. 2 for working in an H2S environment or a potential H2S environment.

I. Hydrogen Sulfide Training

All contractors and subcontractors employed by Conoco will receive or have received training from a qualified instructor within the last twelve months in the following areas prior to commencing drilling operations on this well.

1. The hazards and characteristics of hydrogen sulfide (H2S)
2. Safety precautions.
3. Operations of safety equipment and life support systems.

In addition, contractor supervisory personnel will be trained or prepared in the following areas:

1. The effect of H2S on metal components in the system, especially where high tensile strength tubulars are to be used.
2. Corrective action and shutdown procedures when drilling or reworking a well, blowout prevention and well control procedures, if the nature of work performed involves these items.
3. The contents and requirements of the contingency plan when such plan is required.

All personnel will be required to carry documentation of the above training on their person.

II. H2S EQUIPMENT AND SYSTEMS

1. Safety Equipment

The following minimum safety equipment will be on location:

A. Wind direction indicators placed near rig floor/mud return lines and at points along the perimeter of the location to allow visibility of at least one indicator from any point on location.
B. Automatic H2S detection alarm equipment (both audio and visual).
C. Clearly visible warning signs. Signs will use the words "POISON GAS" and "CAUTION" with a strong color contrast.
D. Protective breathing equipment will be located in the doghouse and at briefing areas on location.

2. Well Control Systems

A. Blowout Prevention Equipment

Equipment includes but is not limited to:

1. Pipe rams to accommodate all pipe sizes
2. Blind rams
3. Choke manifold
4. Closing Unit
5. Flare line and means of ignition

B. Communication

The rig contractor will be required to have two-way communication capability. Conoco will have either land-line, satellite phone, microwave phone, or mobile (cellular) telephone capabilities.

C. Mud Program

The mud program has been designed to minimize the volume of H2S circulated to surface. Proper mud weight, safe drilling practices, and the use of H2S scavengers when appropriate will minimize hazards when penetrating H2S bearing zones.

D. Drill Stem Tests

Any planned drill stem test will be cancelled if H2S is detected prior to such test. In the event that H2S is detected during testing, the test will be terminated immediately.

DRILLING PLAN – Studhorse State No. 36-1

1. **Location:** Section 36, R7E, T33S 2237' FNL & 1960' FEL

2. **Geological Marker Tops:** (RKB: 6511' est. - GL: 6498' est.)

Formation	Drilled Depth (RKB)	Datum	Estimated Pressure	Fluid / Mineral
RKB	0.00	+6511		
Moenkopi	0.00	+6498	Normal / Subnormal	
Kaibab	221.00	+6290	"Ditto"	
Coconino	276.00	+6235	"Ditto"	
Organ Rock	752.00	+5759	"Ditto"	
Cedar Mesa	904.00	+5609	"Ditto"	
Hermosa	2,491.00	+4020	"Ditto"	
Molas Redbeds	2,957.00	+3554	"Ditto"	
Redwall	3,083.00	+3428	"Ditto"	
Ouray	3,888.00	+2623	"Ditto"	
Elbert	4,026.00	+2485	"Ditto"	
Lynch	4,387.00	+2124	"Ditto"	
Bright Angel	5,709.00	+802	"Ditto"	
Tapeats	5,981.00	+530	"Ditto"	Oil / Gas
Sixtymile Redbeds	6,185.00	+326	"Ditto"	
Granite	6,243.00	+268	"Ditto"	
TD	6,393.00	+118	"Ditto"	

3. **Casing Program:** (all new):

Depth	Size	Weight	Grade	Thread	Collapse	Burst	Tension
0 - 500'	9-5/8"	36#	K-55	LTC	2020	3520	423,000
0 – 4,900	7"	26#	L-80	BTC	5410	7240	604,000
4,360 – 6,393'	4-1/2"	11.6#	L-80	LTC	6350	7780	223,000

4. **Cementing Program:**

Casing	Coverage	Slurry	Weight (#/gal)	Volume	Type & Additives
Surface 9 5/8"	500-0'	Lead/ Tail	15.6	282 sx 333 cuft 1.8	Class B + 2%CACL2 + .25#/sx cello flake
Interm 7"	4900-0'	Lead	11.4	271 sx 894 cuft 3.29	Class G + 3% Extender + .25#/sx cello flake + .1% Antifoam
		Tail	14.2	100sx 120cuft 1.2	50/50 Poz Class G + 2% gel 5#/sx Kolite + .25#/sx cello flake + .1% Antifoam
Liner 4 ½"	6393-4360'	Lead/ Tail	13.5	182 sx 249 cuft 1.37	50/50 Poz Class G + 2% gel 5#/sx Kolite + .25#/sx cello flake + .1% Antifoam + 0.5% Fluid Loss + 0.1% Dispersant

Note: 1. Actual Cement Volumes will be calculated from caliper logs.

5. **Pressure Control Equipment:**

A. BOP: 3000 psi w.p. Double ram blowout preventer with appropriate extension handwheels to 6393'. The pipe rams will be on top and blind rams on the bottom.

B. A function test and visual inspection of the BOP will be performed daily.

C. BOP equipment will be tested at least every 14 days. The BOP and casing test will conform to Onshore order No. 2.

6. **Auxiliary Equipment:**

A. Kelly cock

B. Drill pipe float

C. Visual monitoring of the mud system.

D. Rotating head

7. **Variance Request:**

A. Conoco request a variance from the requirement to use a straight run blooie line. Where possible a straight blooie line will be used. Where it is not possible, any tees or ells in the lines will be targeted.

8. **Drilling Fluids Program:**

Interval	Mud Type	Density (lb/gal)	Funnel Viscosity (Sec/Qt)	Water Loss
0 - 500'	Gel/Lime / Aerated Mud	8.5-8.8	28 - 50	30 cc
500 - 4,900'	Gel/Lime / Aerated Mud	8.5-8.8	28 - 50	20 cc
4,900 – 6,393'	Gel/Lime	8.5-8.8	32 - 50	10 cc

9. **Testing, Logging and Coring:**

A. Logging - Open hole:

DIL/GR/Sonic/LDT/CNL from TD to 4890'
Dipmeter - Tapeats to TD
Rotary Sidewall Cores - As per Geologist

B. No Cores planned

C. Possible DST in the Tapeats Sandstone

D. Final determination of the completion interval will be made by analysis of logs.

E. Directional control shall be maintained by running a drift shot survey after every 1,000' of drilling.

10. **Abnormal Pressure or Temperatures: Potential Hazards.**

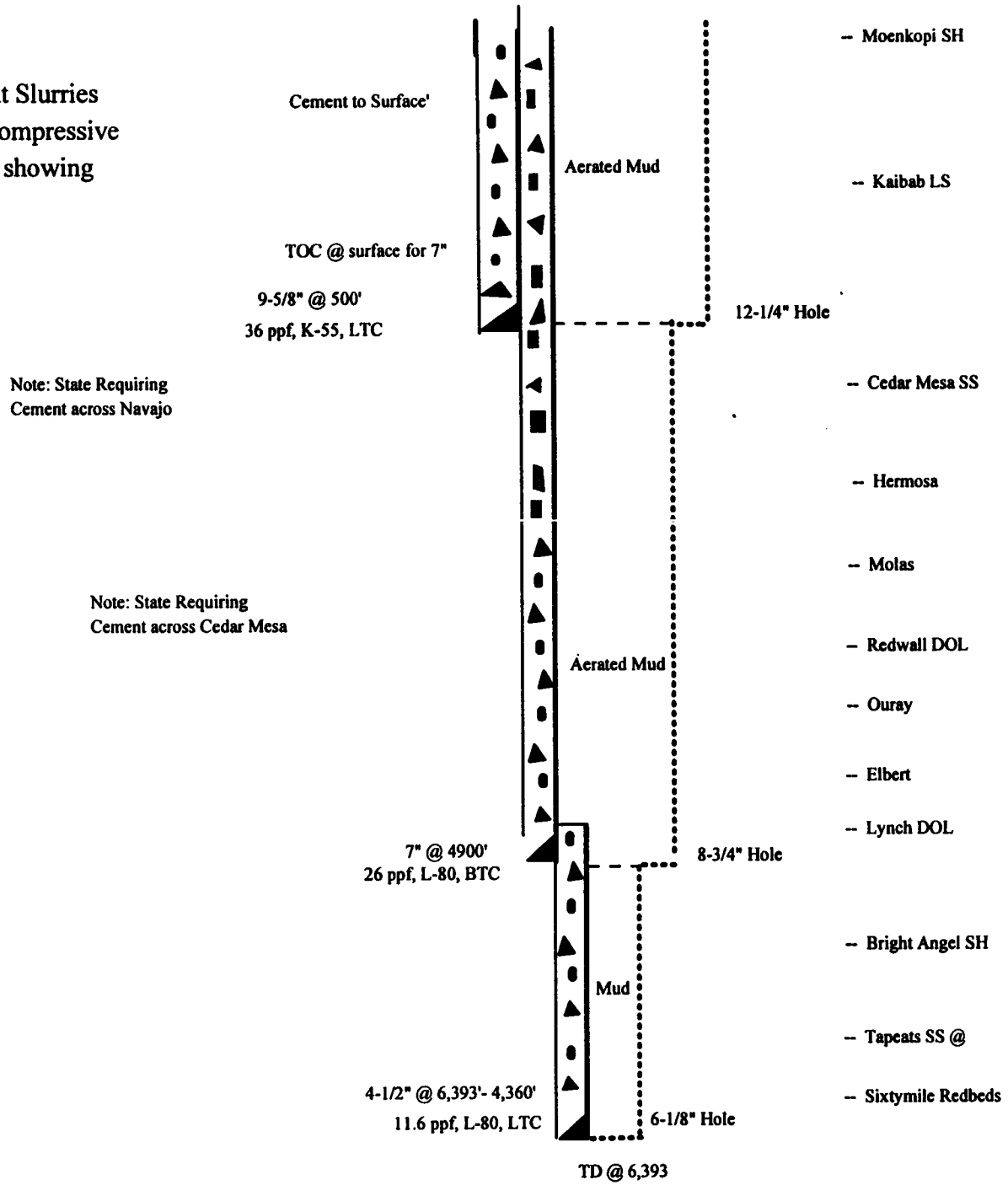
A. Lost circulation is possible throughout wellbore.
B. Due to the exploratory nature of the well an H2S contingency planned will be developed and implemented prior to reaching spud. H2S monitoring and air breathing apparatus will be rigged up and available prior to spud.

11. **Additional Information:**

It is Conoco's intention to bury the cuttings on location once the pit has evaporated naturally.

Studhorse State 36-1
Section 36, R7E, T33S

Note: All Lead Cement Slurries Must exceed 500 psi compressive and must have lab test showing compressive strength.



Multi-Point Surface Use and Operations Plan

CONOCC INCORPORATED
STUDHORSE STATE #36-1
SW4 NE4 SEC. 36, T33S, R7E
GARFIELD COUNTY, UTAH

1. EXISTING ROADS: Refer to maps "A" & "B"

A. The proposed wellsite is staked and reference stakes are present.

B. The StudHorse State #36-1 is located 20 miles Southeast of Boulder Utah in the SW1/4 NE1/4 Sec. 36, T33S, R7E, S.L.B.&M. Garfield County Utah. To reach the StudHorse State #36-1 proceed East from Boulder on Burr Trail road for 25.4 miles to the intersection of this road and a county road. Turn left and continue 4.0 miles to proposed access road sign. Follow flags 1.0 miles to location.

C. Access roads - refer to maps "A" and "B"

D. Access roads within a one mile radius - refer to map "B"

E. The existing roads will be maintained in the same or better condition as existed prior to the commencement of operations and said maintenance will continue until final abandonment and reclamation of the well location.

2. PLANNED ACCESS ROADS: Refer to Map "B"

Approximately 1.0 miles of new road construction will be required for access to the proposed well location.

A. Width - maximum 30-foot overall right-of-way with an 18-foot road-running surface, crowned & ditched and/or sloped and dipped.

B. Construction standard - the access road will be constructed to same standards as previously accepted in this area.

The road will be constructed to meet the standards of the anticipated traffic flow and all weather requirements. Construction will include ditching, draining, crowning and capping or sloping and dipping the roadbed as necessary to provide a well-constructed and safe road.

Prior to construction/upgrading, the roadway shall be cleared of any snow cover and allowed to dry completely.

Traveling off of the thirty (30) foot right-of-way will not be allowed.

Road drainage crossings shall be of the typical dry creek drainage crossing type. Crossings shall be designed so they will not cause siltation or the accumulation of debris in the drainage crossing nor shall the drainages be blocked by the roadbed. Erosion of the drainage ditches by runoff water shall be prevented by diverting water off at frequent intervals by means of cutouts.

Upgrading shall not be allowed during muddy conditions.

Should mud holes develop, they will be filled in and detours around them avoided.

C. Maximum grade - less than 10%

D. Drainage design - the access road will be crowned and ditched or sloped and dipped, and water turnouts installed as necessary to provice proper drainage along the access road route.

E. Turnouts - none required

F. Culverts - none

G. Surface materials - any surfacing materials required will be purchased from a local contractor having a permitted source of materials in the area. None are anticipated at this time.

H. Gates, cattleguards or fence cuts - none required

I. Road maintenance - during both the drilling and production phase of operations, the road surface and shoulders will be kept in a safe and useable condition and will be maintained in accordance with the original construction standards. The access road right-of-way will be kept free of trash during operations.

J. The proposed access road has been centerline flagged.

K. Dust will be controlled on the roads and locations during construction and drilling by periodic watering of the roads and locations.

3. LOCATION OF EXISTING WELLS WITHIN A ONE MILE RADIUS

A. Water wells - none known
B. Abandoned wells - none known
C. Temporarily abandoned wells - none known
D. Disposal wells - none known
E. Drilling wells - none known
F. Producing wells - none known
G. Shut-in wells - none known
H. Injection wells - none known
I. Monitoring wells - none known

4. Location of Existing and/or Proposed Facilities Owned by Conoco Incorporated Within a One Mile Radius:

A. Existing

1. Tank batteries - none
2. Production facilities - none
3. Oil gathering lines - none
4. Gas gathering lines - none
5. Injection lines - none
6. Disposal lines - none

B. New Facilities Contemplated: in the event of production the following will be shown.

1. Proposed location and attendant lines, by flagging, if off well pad.
2. Dimensions of facilities.
3. Construction methods and materials.
4. Protective measures and devices to protect livestock and wildlife.
5. All buried pipelines will be buried to depth of 3 feet except at road crossings where they will be buried to a depth of 4 feet.
6. Construction width of the right-of-way/pipeline route shall be restricted to 50 feet of disturbance.
7. Pipeline location warning signs shall be installed within 90 days after construction is completed.
8. Conoco Inc. shall condition pipeline right-of-ways in a manner to preclude vehicular travel upon said rights of-way, except for access to pipeline drips and valves.
9. The area used to contain the proposed production facilities will be built using native materials. If these materials are not acceptable arrangements will be made to acquire appropriate materials from private sources.
10. A dike will be constructed completely around any those production facilities which contain fluids (i.e.

production tanks, produced water tanks etc.). These dikes will be constructed of compacted subsoil, be impervious, hold 110% of the capacity of the largest tank and be independent of the back cut.

11. All permanent (onsite for six months or longer) above-the-ground constructed or installed, including pumping units, will be painted a flat non-reflective, earthtone color to match one of the standard environmental colors, as determined by the Five State Rocky Mountain Interagency Committee. All production facilities will be painted within six months of installation. Facilities required complying with Occupational Health and Safety Act Rules and Regulations will be excluded from this painting requirement.

    The required paint color for this well will be as stipulated by the State of Utah.

C. The production (emergency) pit will be 8 feet in diameter and 8 feet deep. It will be lined with corrugated steel with a steel mesh cover.

D. During drilling and subsequent operations, all equipment and vehicles will be confined to the access road right-of-way and any additional areas as specified in the approved Application for Permit to Drill.

E. Reclamation of disturbed areas no longer needed for operation will be accomplished by grading, leveling and seeding as recommended by the State of Utah.

F. The proposed pipeline will be submitted to the authorized officer via Sundry Notice for approval of subsequent operations.

G. Conoco Inc. will be responsible for road maintenance from the beginning to completion of operations.

5. Location and Type of Water Supply

A. Water to be used for the drilling of these wells will be hauled by truck over the roads described in item #1 and item #2, from the Boulder City water supply (which is approximately 20 miles West of the proposed location).

B. A water well may be drilled on this location if it is determined to be more viable than hauling water.

6. Source of Construction Materials

A. No construction materials are needed for drilling operations. In the event of production, the small amount of gravel needed for facilities will be hauled in by truck from a local gravel pit over existing access roads to the area. No special access other than for drilling operations and pipeline construction is needed.

B. All access roads are described under item #2, and shown on Map #A.

All construction material for these location sites and access roads shall be borrow material accumulated during the construction of the location sites and access roads. No additional construction material from other sources is anticipated at this time, if in the future it is required the appropriate actions will be taken to acquire it from private sources.

C. All surface disturbance area is on State surface.

D. All trees on the locations, access roads, and proposed pipeline routes shall be purchased prior to construction from the State of Utah, and disposed of by one of the following methods:

i. Trees shall be cut with a maximum stump height of six inches (6"), and cut to 4' lengths and stacked off location. Trees will not be dozed off the location or, access road, unless approval is specifically granted by the authorized officer. Trees may also be dozed on pipeline routes and then pulled back onto right-of-way as part of final reclamation.

ii. Limbs may be scattered off location, access road or along the pipeline, but not dozed off.

Rootballs shall be buried or placed off location, access road, or pipeline route to be scattered back over the disturbed area as part of final reclamation.

7. Methods of Handling Waste Materials:

A. Cuttings - the cuttings will be deposited in the reserve/blooie pit.

B. Drilling fluids - including salts and chemicals will be contained in the reserve/blooie pit. Upon termination of drilling and completion operations, the liquid contents of the reserve pit will be removed and disposed of at an

approved waste disposal facility within ninety (90) days after termination of drilling and completion activities.

The Authorized Officer upon receipt of a written request may grant an extension in the event adverse weather conditions prevent removal of the fluids from the reserve pit within this time period, from Conoco Incorporated.

The reserve pit will be constructed so as not to leak, break, or allow discharge.

C. Produced fluids - liquid hydrocarbons produced during completion operations will be placed in test tanks on the location. Produced waste water will be confined to a lined pit (reserve pit) or storage tank for a period not to exceed ninety (90) days after initial production. During the ninety- (90) day period, in accordance with NTL-2B, an application for approval of a permanent disposal method and location, along with the required water analysis shall be submitted for the Authorized Officer's approval. Failure to file an application within the time frame allowed will be considered an incidence of noncompliance.

Any spills of oil, gas, salt water or other noxious fluids will be immediately cleaned up and removed to an approved disposal site.

D. Sewage - self-contained, chemical toilets will be provided for human waste disposal. Upon completion of operations, or as needed, the toilet holding tanks will be pumped and the contents thereof disposed of in the nearest, approved, sewage disposal facility.

E. Garbage and other waste material - garbage, trash and other waste materials will be collected in a portable, self-contained and fully enclosed trash cage during drilling and completion operations. Upon completion of operations (or as needed) the accumulated trash will be disposed of at an authorized sanitary landfill. No trash will be burned on location or placed in the reserve pit.

F. Immediately after removal of the drilling rig, all debris and other waste materials not contained in the trash cage will be cleaned up and removed from the well location. No adverse materials will be left on the location. Any open pits will be fenced during the drilling operation and the fencing will be maintained until such time as the pits are backfilled.

G. The reserve and/or production pit will be constructed on

the existing location and will not be located in natural drainage's where a flood hazard exists or surface runoff will destroy or damage the pit walls. All pits will be constructed so as not to leak, break, or allow the discharge of liquids therefrom.

8. Ancillary Facilities:

None anticipated.

9. Wellsite Layout:

A. Plat #1A shows the drill site layout as staked. Plat #1B has been drafted to visualize the planned cuts and fills across the location. An average minimum of eight (8) inches of topsoil will be stripped from the location (including areas of cut, fill, and/or subsoil storage) and stockpiled for future reclamation of the well site. Refer to Plat #1 for the location of the topsoil and subsoil stockpiles.

B. Plat #2 is a diagram showing the rig layout. No permanent living facilities are planned. There will be two (2) trailers on location during drilling operations. If it is determined to be more feasable a man camp may be set up on location during drilling operations.

C. A diagram showing the proposed production facility layout will be submitted to the Authorized Officer via Sundry Notice (Form 3160-5) for approval of subsequent operations.

D. If determined to be necessary the reserve pit will be lined with a plastic liner.

E. Prior to the commencement of drilling operations, the reserve pit will be fenced on three (3) sides using three strands of barbed wire according to the following minimum standards:

1. Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.

2. Standard steel, wood, or pipe posts shall be used between the corner braces. The maximum distance between any two- (2) posts shall be no greater than sixteen (16) feet.

3. All wire shall be stretched, by using a stretching device, before it is attached to the corner posts.

The fourth side of the reserve pit will be fenced immediately upon removal of the drilling rig and the fencing will be maintained until the pit is backfilled.

F. Any hydrocarbons on the pit will be removed from the pit as soon as possible after drilling operations are completed.

10. Plans for Reclamation of the Surface:

The State of Utah will be contacted prior to commencement of any reclamation operations.

A. Production

1. Immediately upon well completion, the well location and surrounding area(s) will be cleared of all debris, materials, trash and junk not required for production.

2. Immediately upon well completion, any hydrocarbons in the pit shall be removed in accordance with 43 CFR 3162.7-1.

3. If a plastic or nylon reinforced pit liner is used, it shall be removed at the mud line and disposed of in an approved landfill. Remaining liner shall be perforated before backfilling of the reserve pit.

4. Before any dirt work to restore the location takes place, the reserve pit will be completely dry and all cans barrels, pipe, etc. will be removed.

   Other waste and spoil materials will be disposed of immediately upon completion of drilling and workover activities.

5. The reserve pit and that portion of the location and access road not needed for production facilities/operations will be reclaimed within ninety (90) days from the date of well completion, weather permitting.

6. If the well is a producer, Conoco will:
   Upgrade and maintain access roads as necessary to prevent soil erosion, and accommodate year round traffic. Reshape areas unnecessary to operations, distribute topsoil, disk and seed all disturbed areas outside the work area according to the State of Utah recommended seed mixture.

If the well is abandoned/dry hole, Conoco will:
Restore the access road and location to approximately the original contours. During reclamation of the site, push the fill material into cuts and up over the backslope. Leave no depressions that will trap water or form ponds. Distribute topsoil evenly over the location, and seed according to the recommended seed mixture. The access road and location shall be ripped or disked prior to seeding. Perennial vegetation must be established. Additional work shall be required in case of seeding failures, etc.

Seedbed will be prepared by disking. Seed will be drilled on contours at a depth no greater than one-half inch (1/2"). In areas that cannot be drilled, seed will be broadcast at double the seeding rate and harrowed into soil. Certified seed will be used whenever available.

Fall seeding will be completed after September 1 and prior to prolonged ground frost. Spring seeding, to be effective, will be completed after the frost has left the ground and prior to May 15th.

7. Upon completion of backfilling, leveling and recontouring, the stockpiled topsoil will be evenly spread over the reclaimed area(s). Prior to reseeding, all disturbed surfaces will be scarified and left with a rough surface. No depressions will be left that would trap water and form ponds. All disturbed surfaces will be reseeded with a seed mixture to be recommended by the State of Utah.

   Seed will be drilled on the contour to an approximate depth of one-half (1/2) inch. All seeding will be conducted after September 1 and prior to ground frost. Spring seeding will be done after the frost leaves the ground and no later than May 15. If the seeding is unsuccessful, Conoco Incorporated may be required to make subsequent seedings.

B. Dry Hole/Abandoned Location

1. On lands administered by the State of Utah abandoned well sites, roads, or other disturbed areas will be restored to near their original condition. This procedure will include:

   (a) Re-establishing drainage patterns where applicable,

   (b) Re-establishing soil conditions in such a way as to

ensure revegetation of disturbed areas.

2. All disturbed surfaces will be recontoured to the approximate natural contours and reseeded according to State specifications. Reclamation of the well pad and access road will be performed as soon as practical after final abandonment and reseeding operations will be performed in the fall or spring following completion of reclamation operations.

11. Surface Ownership:

All well sites and proposed access roads are situated on surface lands administered by the State of Utah.

12. Other Information:

A. Topographic and geologic features of the area (reference Topographic Map #A) are:

The Death Hollow area lies East of Boulder Utah. The area is bounded on the East by Waterpocket Fold and Capitol Reef National Park, on the West by the Circle Cliffs and on the South by Glen Canyon National Recreation Area.

Numerous small drainages drain the area southerly from the top of the Boulder Mountain. This area has a steep gradient and is highly eroded, typical of the semi-arid rimrock and canyon regions of south central Utah.

The Escalante River carries most drainage from this area Southerly to the Colorado River (Lake Powell).

The Gulch and Horse Canyon provide major intermittent drainage to the Escalante River and the Burr Tail Roadway provides access to the area.

The area is accessed via the Burr Trail road from Boulder to the West. (See Maps #A and #B).

The area slopes from the top of Boulder Mountain to the North to the Colorado River to the South. The area is interlaced with numerous canyons and ridges which are extremely steep with numerous ledges formed in sandstone, conglomerates and shale deposits.

The soils in the semi-arid area of the Williams Fork Formation (Upper Cretaceous) and Wasatch Formation (Eocene) consist of light brownish gray clay (OL) to sand soil (SM-ML) type with poorly graded gravels.

Outcrops of sandstone ledges, conglomerate deposits and shale are common in this area.

The topsoils in the area range from a sandy clay (SM-ML) type soil to a clayey (OL) soil.

The majority of the numerous washes and draws in the area are of a non-perennial nature flowing during the early spring run-off and heavy rain storms of long duration which are rare as the normal annual rainfall in the area is only 8".

The flora of the area includes pinon and juniper trees, sagebrush, mountain mahogany, serviceberry, rabbit brush, greasewood, four-wing saltbush, Gambel scrub oak, willow, tamarack, shadscale, Spanish bayonet, indian rice grass, cheatgrass, wheatgrass, curly grass, crested wheatgrass, sweet clover, gum weed, foxtail, mustard, Canadian thistle, Russian thistle, Kochia, sunflowers and cacti.

The fauna of the area includes cattle, horses, elk, deer, coyotes, rabbits, rodents, lizards, bull snakes, rattle snakes, water snakes and horned toads. Birds of the area are ground sparrows, bluejays, bluebirds, magpies, ravens, rapters, morning doves, swallows, nighthawks, hummingbirds, and chukar.

B. The surface ownership is State. The surface use is grazing.

C. 1. The nearest live water is the Escalante River, which lies approximately 20 miles Southwesterly of the area.

2. There are no known occupied dwellings in the area.

3. An archaeological report will be forwarded upon completion.

4. There are no reported restrictions or reservations noted on the oil and gas lease.

13. Lessee's or Operator's Representative:

Mike L. Mankin
Right of Way Agent
Conoco Inc.
10 Desta Drive, Suite 430E
Midland, Texas 79705-4500
(915) 686-5794

Certification:

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil & Gas Orders, the approved plan of operations, and any applicable Notice to Lessees.

Conoco Incorporated will be fully responsible for the actions of their subcontractors.

A complete copy of the approved Application for Permit to Drill will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

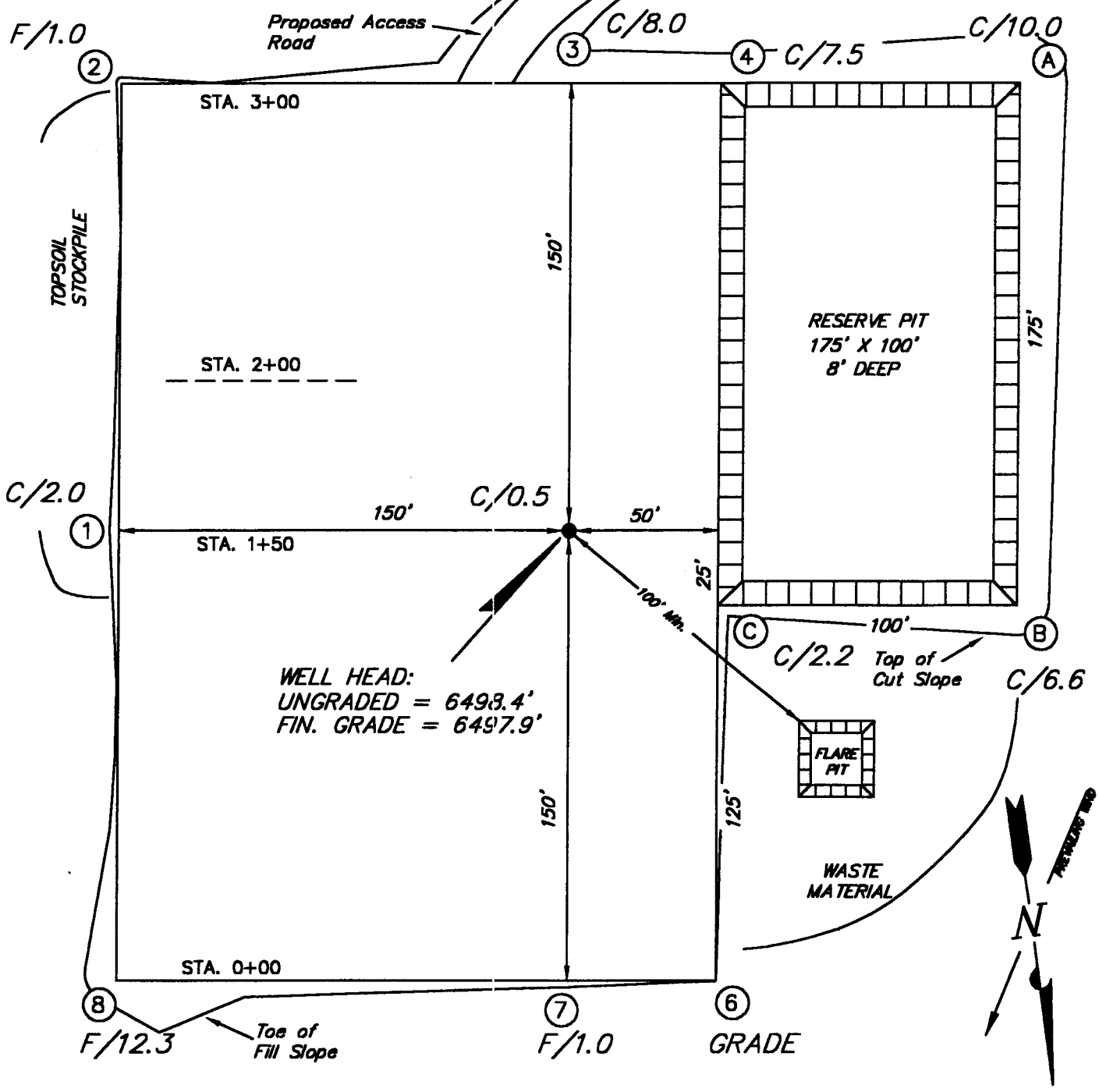
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Conoco Incorporated its' contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Mike L Mankin — 9/29/98 — Right-of-Way Agent

Authorized Signature — Date — Title

CONOCO, INC.

STUD HORSE STATE #36-1
SEC. 36, T33S, R7E, S.L.B.&M.



REFERENCE POINTS

200' EAST = 6498.9'

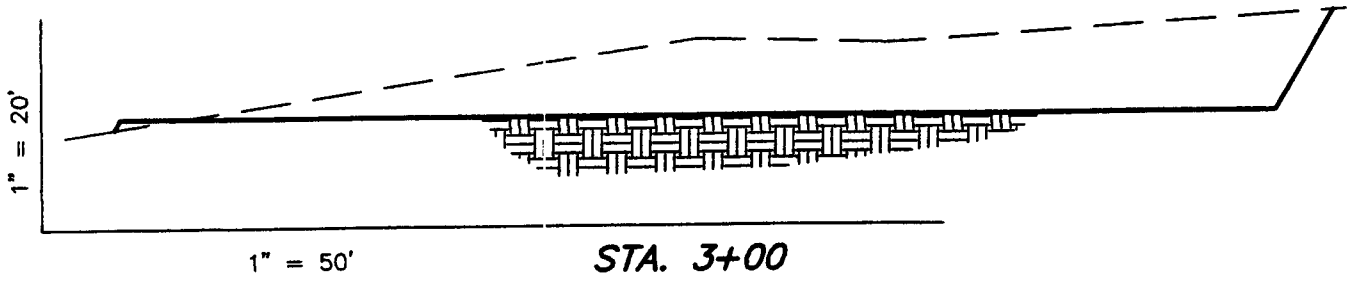
250' EAST = 6494.9'

SURVEYED BY:	D.S.
DRAWN BY:	J.R.S.
DATE:	9-7-98
SCALE:	1" = 50'
FILE:	

Tri State
Land Surveying. Inc.
(801) 781-2501
38 WEST 100 NORTH VERNAL, UTAH 84078

CROSS SECTIONS

STUD HORSE STATE #36-1



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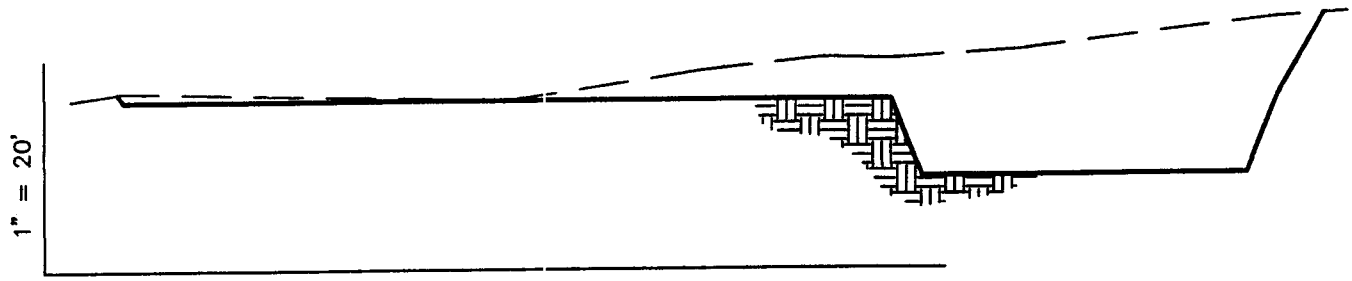

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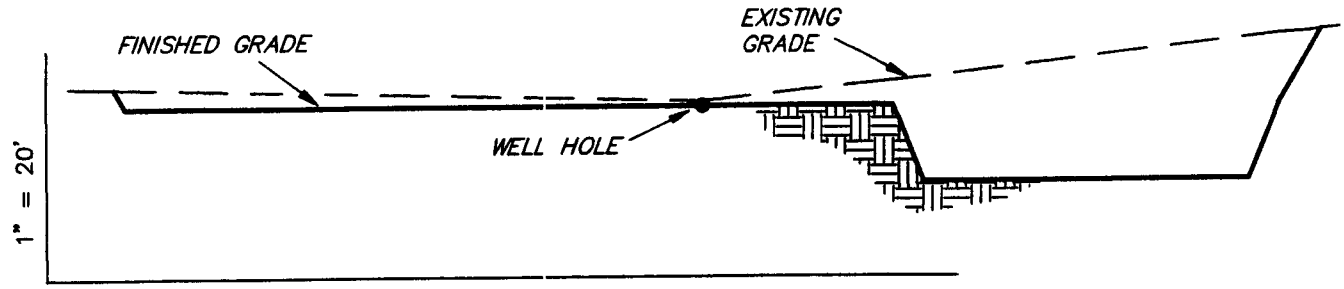

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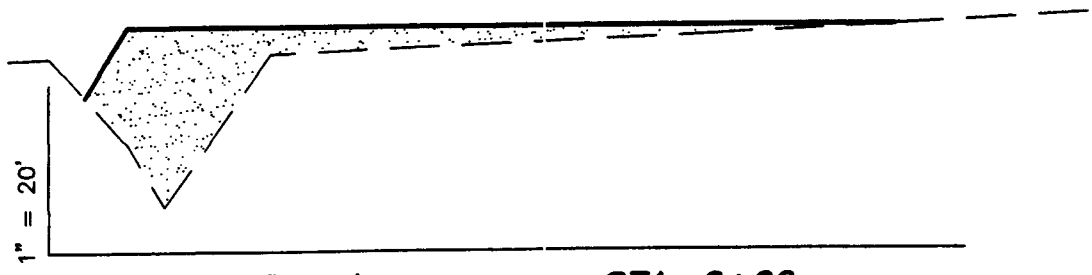
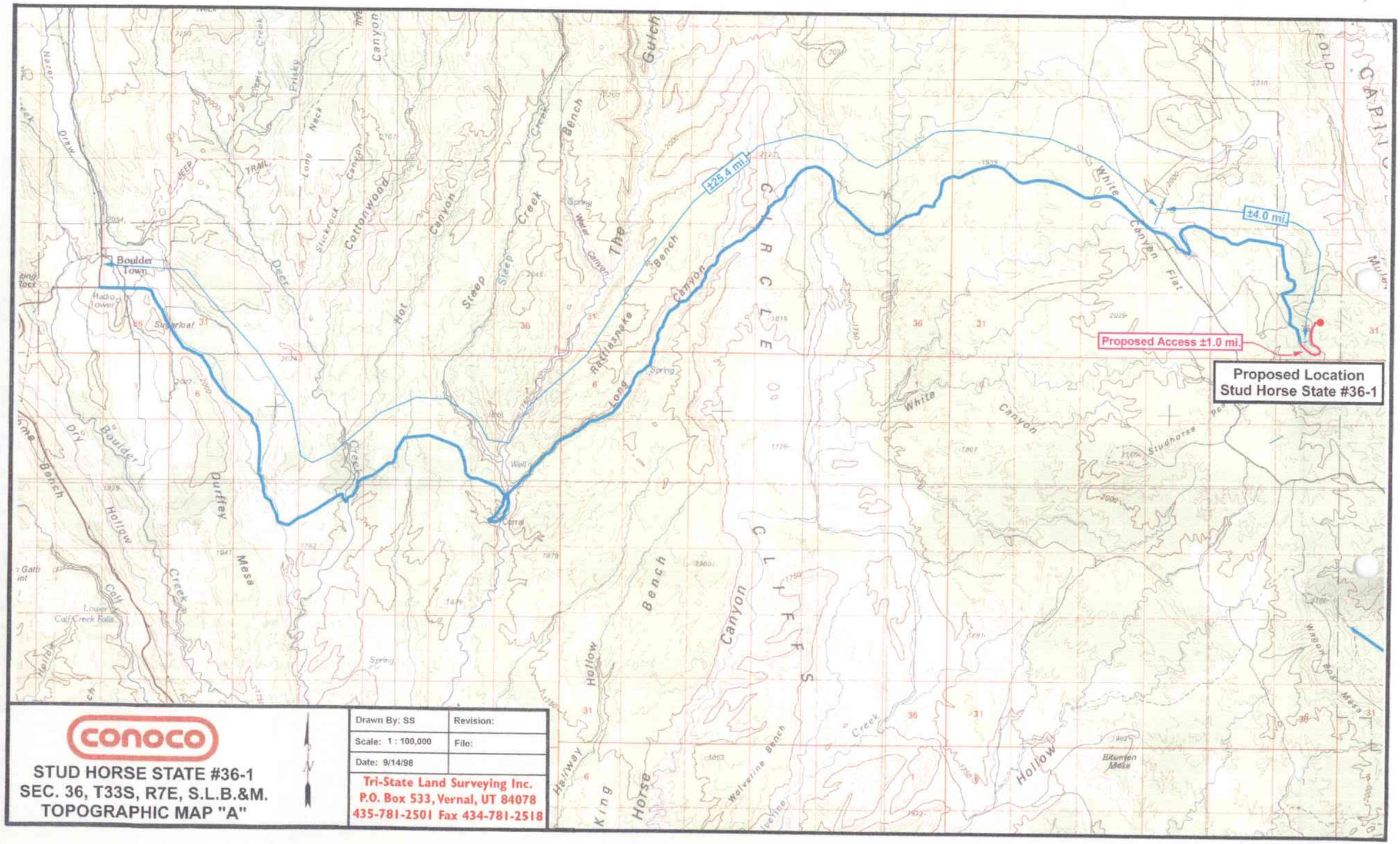


STA. 0+00

APPROXIMATE YARDAGES

CUT = 6,440 Cu. Yds.
FILL = 1,520 Cu. Yds.
PIT = 4,550 Cu. Yds.
6" TOPSOIL = 1,440 Cu. Yds.

Tri State
Land Surveying. Inc.
(801) 781-2501
38 WEST 100 NORTH VERNAL, UTAH 84078



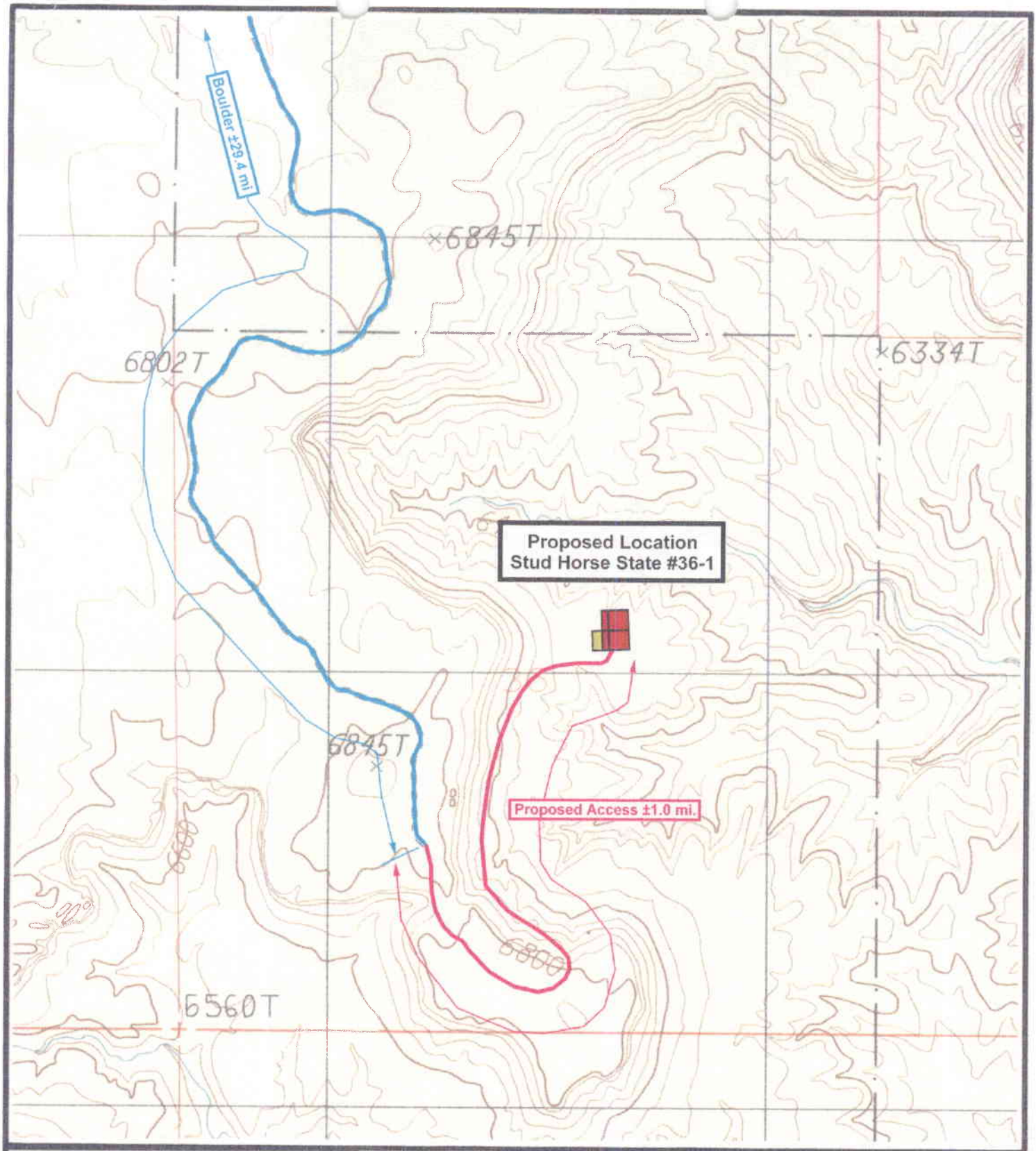
conoco

STUD HORSE STATE #36-1
SEC. 36, T33S, R7E, S.L.B.&M.
TOPOGRAPHIC MAP "A"

N

Drawn By: SS	Revision:
Scale: 1 : 100,000	File:
Date: 9/14/98	

Tri-State Land Surveying Inc.
P.O. Box 533, Vernal, UT 84078
435-781-2501 Fax 434-781-2518



conoco

STUD HORSE STATE #36-1
SEC. 36, T33S, R7E, S.L.B.&M.
TOPOGRAPHIC MAP "B"

N

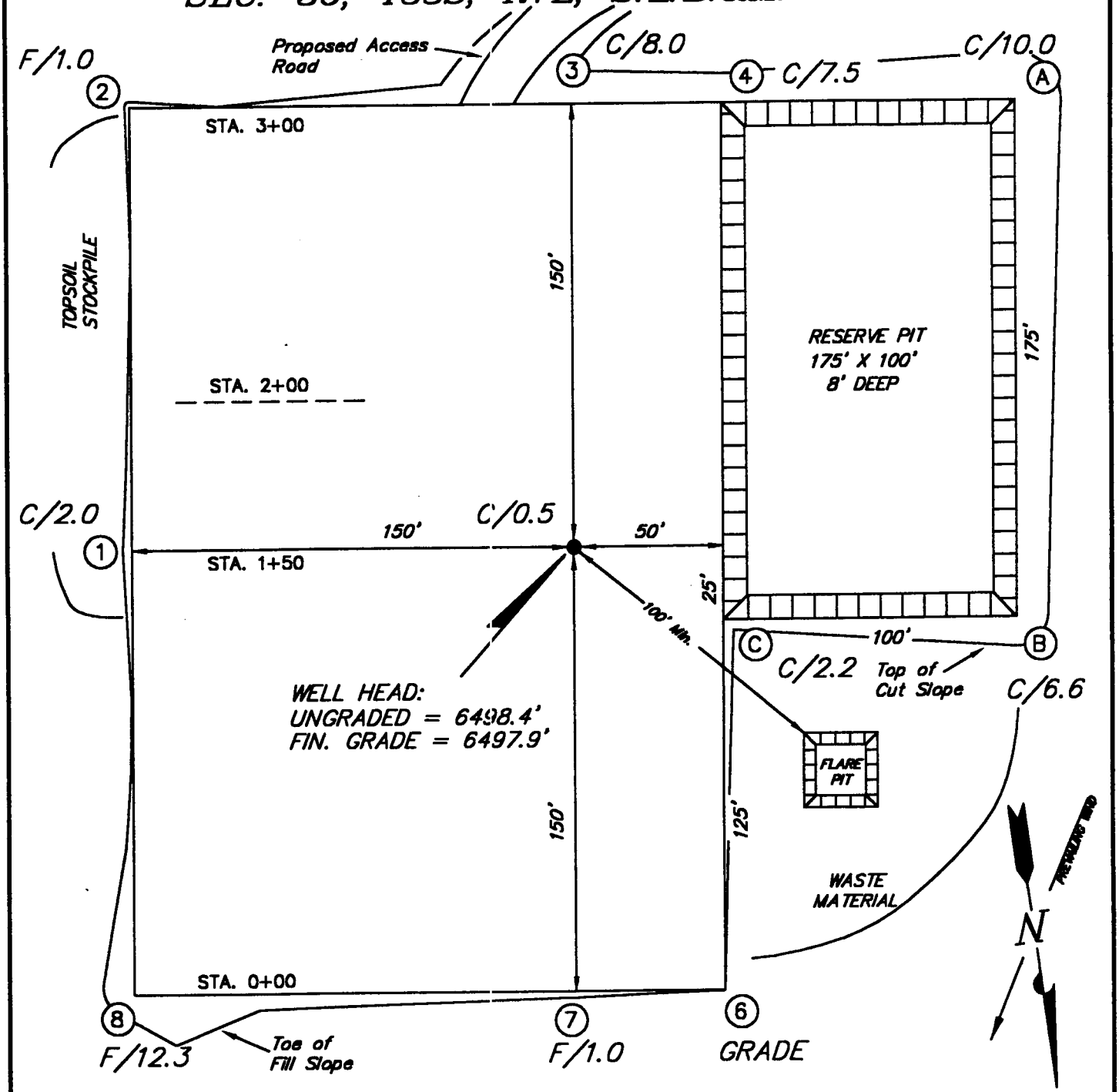
Drawn By: SS	Revision:
Scale: 1" =1000'	File:
Date: 9/14/98	

Tri-State Land Surveying Inc.
P.O. Box 533, Vernal, UT 84078
435-781-2501 Fax 434-781-2518

Plat 1A

CONOCO, INC.

STUD HORSE STATE #36-1
SEC. 36, T33S, R7E, S.L.B.&M.



REFERENCE POINTS
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250' EAST = 6494.9'

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DRAWN BY:	J.R.S.
DATE:	9-7-98
SCALE:	1" = 50'
FILE:	

Tri State
Land Surveying, Inc.
(801) 781-2501
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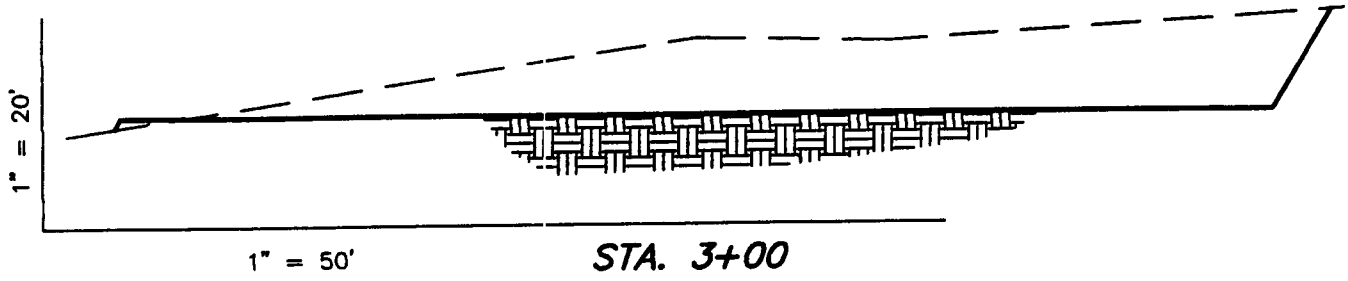
Plat #1B

CROSS SECTIONS

STUD HORSE STATE #36-1



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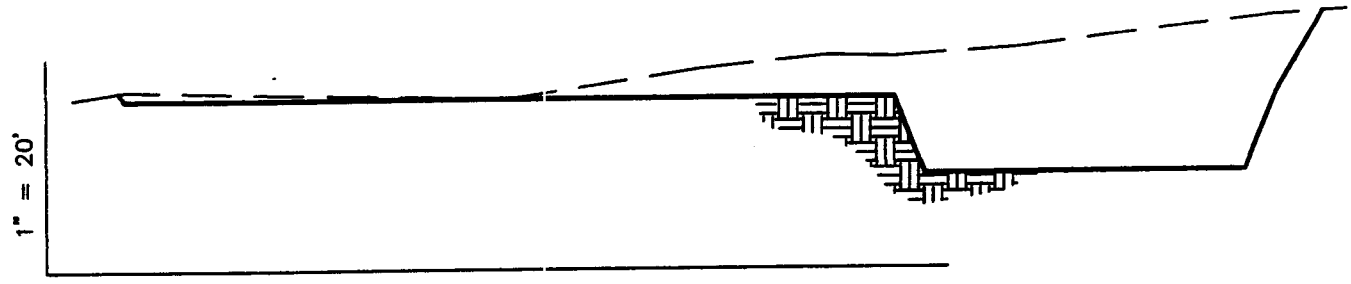

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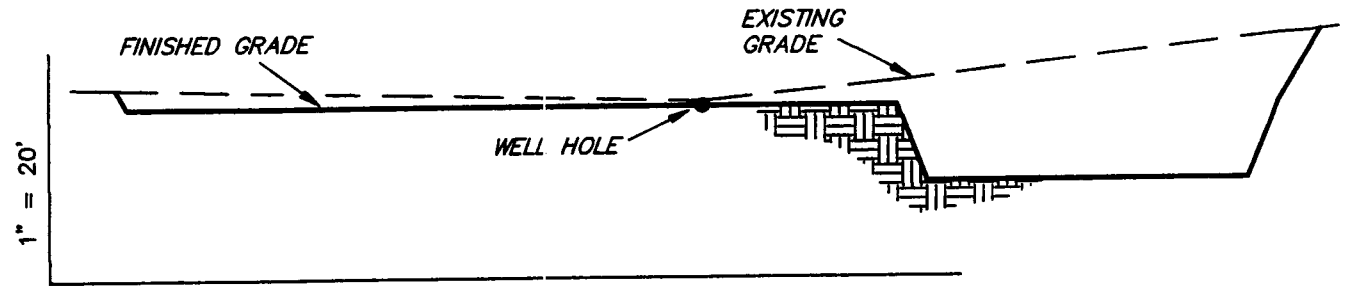

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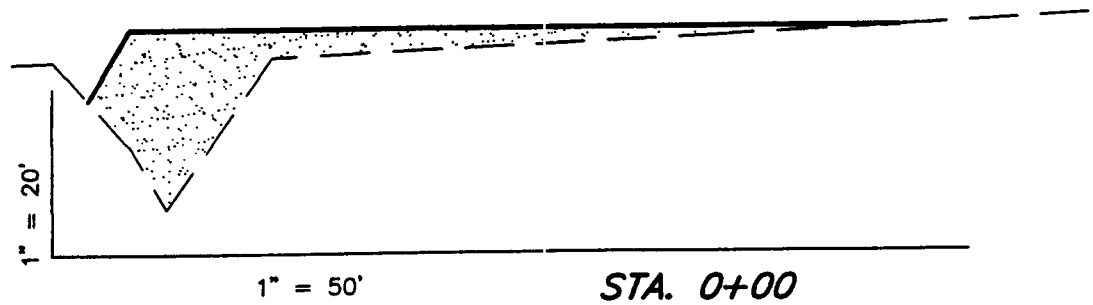

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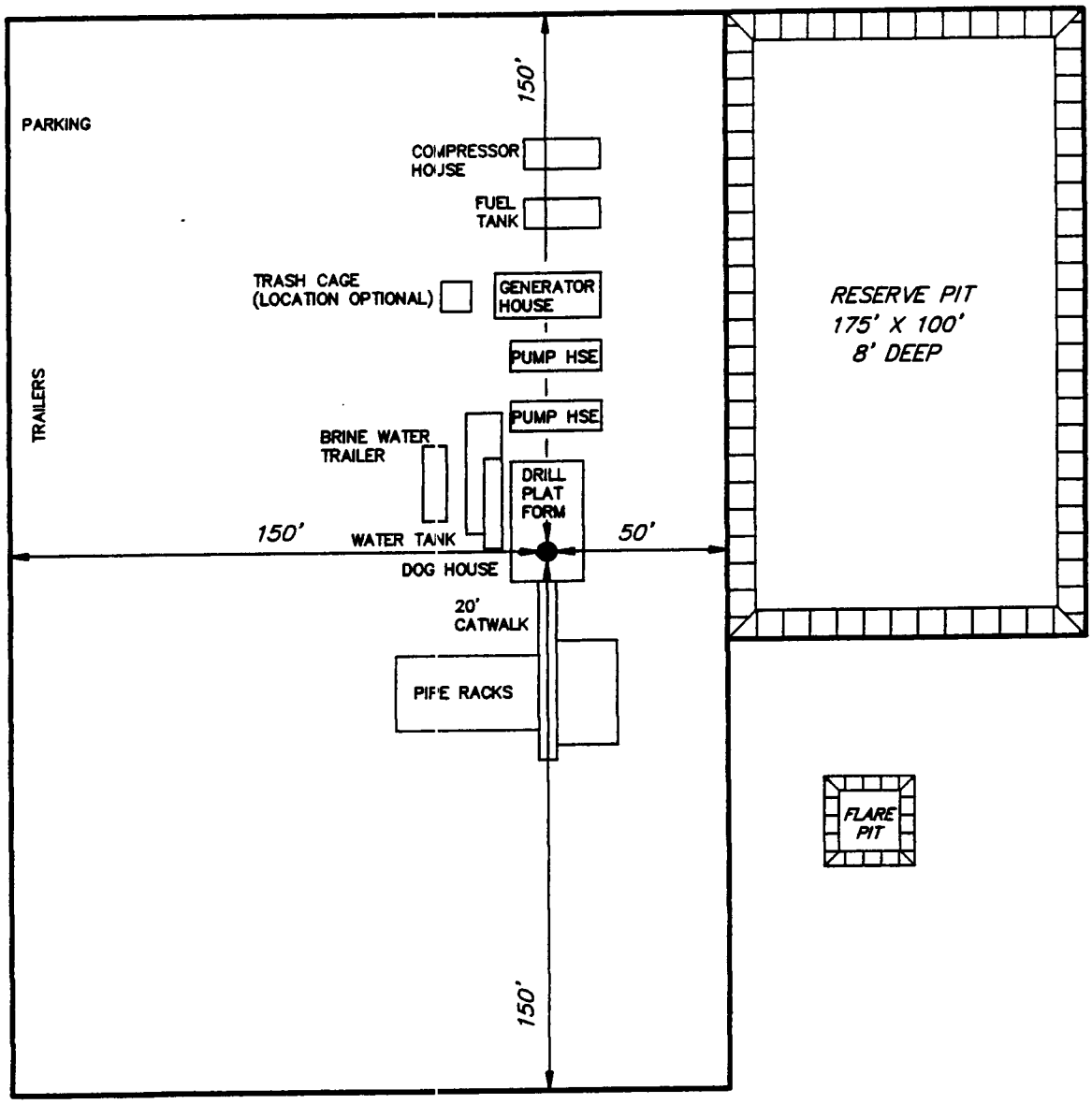
(801) 781-2501
38 WEST 100 NORTH VERNAL, UTAH 84078

Plat #2

TYPICAL RIG LAYOUT

STUD HORSE STATE #36-1



Tri State
Land Surveying. Inc.
(801) 781-2501
38 WEST 100 NORTH, VERNAL, UTAH 84078

Jimmy D. Carlile
Sr. Conservation Coordinator
Mid-Continent Region
Exploration-Production North America

Conoco Inc.
10 Desta Drive, Suite 100W
Midland, TX 79705-4500
(915) 686-5425 Fax: (915) 686-5780

October 22, 1998

Ms. Lisha Cordova
State of Utah
Department of Natural Resources
Division of Oil, Gas and Mining
3 Triad Center, Suite 350
Salt Lake City, UT 84180-1203

Dear Ms. Cordova,

Re: Stud Horse State 36 No. 1,
Non Standard Location

As agreed in our discussions yesterday afternoon, enclosed is Conoco's request for a non-standard location for the Stud Horse State 36 No. 1 located at 2237' FNL, 1960' FEL, Section 36, T33S, R7E, Garfield County, Utah. This location is non-standard due to severe topography just north of the location where a standard location would have been. All working interest within 460' of this proposed wellbore is held by Conoco, thus making notice to other parties unnecessary.

Conoco had originally filed for this exception location by letter dated October 8, 1998. If you need any additional information please call me at the number listed on the letterhead.

Yours very truly,

Jimmy D. Carlile
Sr. Conservation Coordinator

CONOCO

Conoco Inc.

Request for Facsimile Transmission

Date
10/22/98

From

Employee	Ext.
Jimmy D. Carlile	(915) 686-5425 Phone (915) 686-5780 FAX
City, State, Country	Room No.
Midland, TX 79705	
Acct. No.	

To

Name	Phone No.
Lisha Cordova	(801) 538-5296 phone (801) 359-3940 fax
Department	Room No.
Utah Division of Oil, Gas and Mining	
City, State Country	
Salt Lake City, Utah	

No. of Pages
3 Total

Note:
1. Your originals must have good contrast (dark detail on light background).
2. Legible.
3. ½ inch margin on all sides of sheet.
4. Number all pages.

Special Instructions

Attached are two letter applications for exception locations for the Muley Creek Federal 29 No. 1 and the Stud Horse State 36 No. 1. If you have any questions or need additional information please give me a call at (915) 686-5425.

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 10/01/98

API NO. ASSIGNED: 43-017-30142

WELL NAME: STUDHORSE ST 36#1
OPERATOR: CONOCO INC (N0260)
CONTACT: Mike Mankin (915) 686-5794

PROPOSED LOCATION:
SWNE 36 - T33S - R07E
SURFACE: 2237-FNL-1960-FEL
BOTTOM: 2237-FNL-1960-FEL
GARFIELD COUNTY
WILDCAT FIELD (001)

LEASE TYPE: STA
LEASE NUMBER: ML-45298
SURFACE OWNER: State

PROPOSED FORMATION: TAPTS

INSPECT LOCATION BY: / /		
TECH REVIEW	Initials	Date
Engineering	RJK	11-3-98
Geology		
Surface		

RECEIVED AND/OR REVIEWED:

✓ Plat
✓ Bond: Federal [] State [✓] Fee []
(No. 8140-60-24)
N Potash (Y/N)
N Oil Shale (Y/N) *190-5(B)
✓ Water Permit
(No. Boulder City Wtr. Supply)
Y RDCC Review (Y/N)
(Date: DOGM Ltr. 10-5-98 / Comments due 10-27-98)
N/A St/Fee Surf Agreement (Y/N)

LOCATION AND SITING:

___ R649-2-3. Unit _____
___ R649-2-3. General
✓ R649-3-3. Exception
___ Drilling Unit
Board Cause No: _____
Date: _____

COMMENTS: * Need add'l info. "Except. Loc." (Rec'd 10-22-98)
* Presite conducted 9-9-98.

STIPULATIONS: ~~Engr. See Review Form~~
① STATEMENT OF BASIS

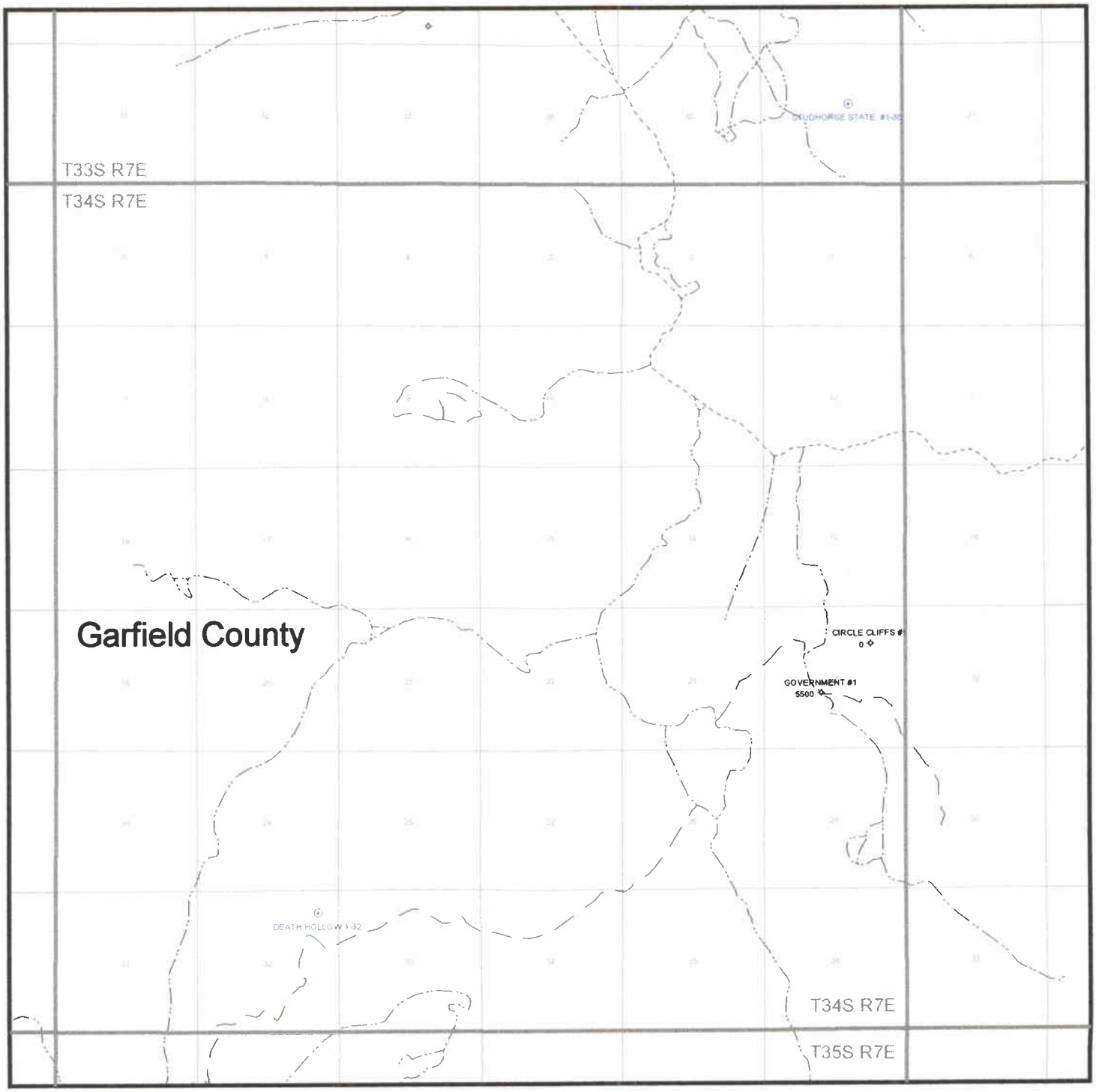
DIVISION OF OIL, GAS & MINING

OPERATOR: CONOCO INC. (N0260)

FIELD: WILDCAT (001)

SEC. 36, TWP 33S, RNG 7E, & SEC. 32, TWP 34S, R7E

COUNTY: GARFIELD STATE LANDS



DATE PREPARED:
2-OCT-1998

DIVISION OF OIL, GAS AND MINING

APPLICATION FOR PERMIT TO DRILL
STATEMENT OF BASIS

Operator Name: Conoco, Inc.
Name & Number: Studhorse State 36-1
API Number: 43-017-30142
Location: 1/4,1/4 SWNE Sec. 36 T. 33S R. 7E

Geology/Ground Water:

"Fresh" ground water resources may be encountered in the Permian Kaibab Limestone, White Rim Sandstone and Cedar Mesa Sandstone and the Pennsylvanian Honaker Trail Formation(?). A thin, highly permeable soil is developed on the Triassic Moenkopi Formation. Fresh water bearing zones should be included within the surface cased interval. The operator will respond to protect the fresh water zones by extending the surface casing string as needed. Extending the proposed casing and cement will adequately isolate any shallow zones containing water.

Reviewer: Christopher J. Kierst **Date**: 9/18/98

Surface:

There is no nearby surface water documented. Precipitation will be deflected around the location with ditches around cuts and berms and culverts. There are no nearby culinary or irrigation water supply wells. The site was photographed and characterized on 9/9/98. Provision was made to ensure site rehabilitation, litter and waste control, preservation of drainage patterns and the integrity of local infrastructure, groundwater and other resources. The well utilities and gas gathering system will follow the approach roadway.

Reviewer: Christopher J. Kierst **Date**: 9/17/98

Conditions of Approval/Application for Permit to Drill:

1) Culverts sufficient to manage expected runoff, standing and surface water shall be installed in crossed drainages.
2) Berms shall be constructed around location and pit.
3) Site infrastructure shall be constructed as per drilling location plat.
4) A synthetic pit liner with a minimum thickness of 12 mils shall be installed in the reserve pit.
5) Conductor, surface and intermediate casing strings shall be cemented over their entire lengths.

Well name:	**Conoco Studhorse State 36#1**
Operator:	**Conoco**
String type:	Surface
AFE No.:	
Location:	Garfield Co.
Project ID:	**43-017-30142**

Design parameters:

Collapse

Mud weight: 8.800 ppg
Design is based on evacuated pipe.

Burst

Max anticipated surface pressure: 0 psi
Internal gradient: 0.457 psi/ft
Calculated BHP 228 psi

No backup mud specified.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Tension:

8 Round STC:	1.80 (J)
8 Round LTC:	1.80 (J)
Buttress:	1.60 (J)
Premium:	1.50 (J)
Body y eld:	1.50 (B)

Tension is based on buoyed weight.
Neutral point: 435 ft

Environment:

H2S considered?	No
Surface temperature:	75 °F
Bottom hole temperature	82 °F
Temperature gradient:	1.40 °F/100ft
Minimum section length:	500 ft
Cement top:	Surface

Non-directional string.

Re subsequent strings:

Next setting depth:	7,500 ft
Next mud weight:	8.800 ppg
Next setting BHP:	3,429 psi
Fracture mud wt:	19.250 ppg
Fracture depth:	7,500 ft
Injection pressure	7,500 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	500	9.625	36.00	K-55	LT&C	500	500	8.765	35.6

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	228	2020	8.84	228	3520	15.41	16	489	31.25 J

Prepared by: RJK
Department of Natural Resources
Phone:
FAX:
Date: November 3,1998
State of Utah

Engineering Stipulations: Conductor, surface and intermediate casing strings; and, production liner shall be cemented over their entire lengths.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.
Collapse is based on a vertical depth of 500 ft, a mud weight of 8.8 ppg The casing is considered to be evacuated for collapse purposes.
In addition, burst strength is biaxially adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:	**Conoco Studhorse State 36#1**
Operator:	**Conoco**
String type:	Intermediate
AFE No.:	
Location:	Garfield Co.
Project ID:	**43-017-30142**

Design parameters:

Collapse

Mud weight: 8.800 ppg
Design is based on evacuated pipe.

Burst

Max anticipated surface pressure: 0 psi
Internal gradient: 0.457 psi/ft
Calculated BHP 2,240 psi

No backup mud specified.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Tension:

8 Round STC:	1.80 (J)
8 Round LTC:	1.80 (J)
Buttress:	1.60 (J)
Premium:	1.50 (J)
Body yield:	1.50 (B)

Tension is based on buoyed weight.
Neutral point: 4,249 ft

Environment:

H2S considered?	No
Surface temperature:	75 °F
Bottom hole temperature	144 °F
Temperature gradient:	1.40 °F/100ft
Minimum section length:	500 ft
Cement top:	Surface

Non-directional string.

Re subsequent strings:

Next setting depth:	7,500 ft
Next mud weight:	8.800 ppg
Next setting BHP:	3,429 psi
Fracture mud wt:	19.250 ppg
Fracture depth:	7,500 ft
Injection pressure	7,500 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	4900	7	26.00	L-80	Buttress	4900	4900	6.151	256.9

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	2240	5410	2.42	2240	7240	3.23	110	604	5.47 B

Prepared by: RJK
Department of Natural Resources
Phone:
FAX:
Date: November 3,1998
State of Utah

Engineering Stipulations: Conductor, surface and intermediate casing strings; and, production liner shall be cemented over their entire lengths.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.
Collapse is based on a vertical depth of 4900 ft, a mud weight of 8.8 ppg The casing is considered to be evacuated for collapse purposes.
In addition, burst strength is biaxially adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:	**Conoco Studhorse State 36#1**
Operator:	**Conoco**
String type:	Liner: Production
AFE No.:	
Location:	Garfield Co.
Project ID:	**43-017-30142**

Design parameters:

Collapse

Mud weight: 8.800 ppg
Design is based on evacuated pipe.

Burst

Max anticipated surface pressure: 0 psi
Internal gradient: 0.457 psi/ft
Calculated BHP 2,923 psi

No backup mud specified.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Tension:

8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Tension is based on buoyed weight.
Neutral point: 6,131 ft

Environment:

H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature 165 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 420 ft

Cement top: 3,745 ft

Liner top: 4,360 ft
Non-directional string.

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	1993	4.5	11.60	L-80	LT&C	6393	6393	3.875	46.2

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	2923	6350	2.17	2923	7780	2.66	20	212	10.56 J

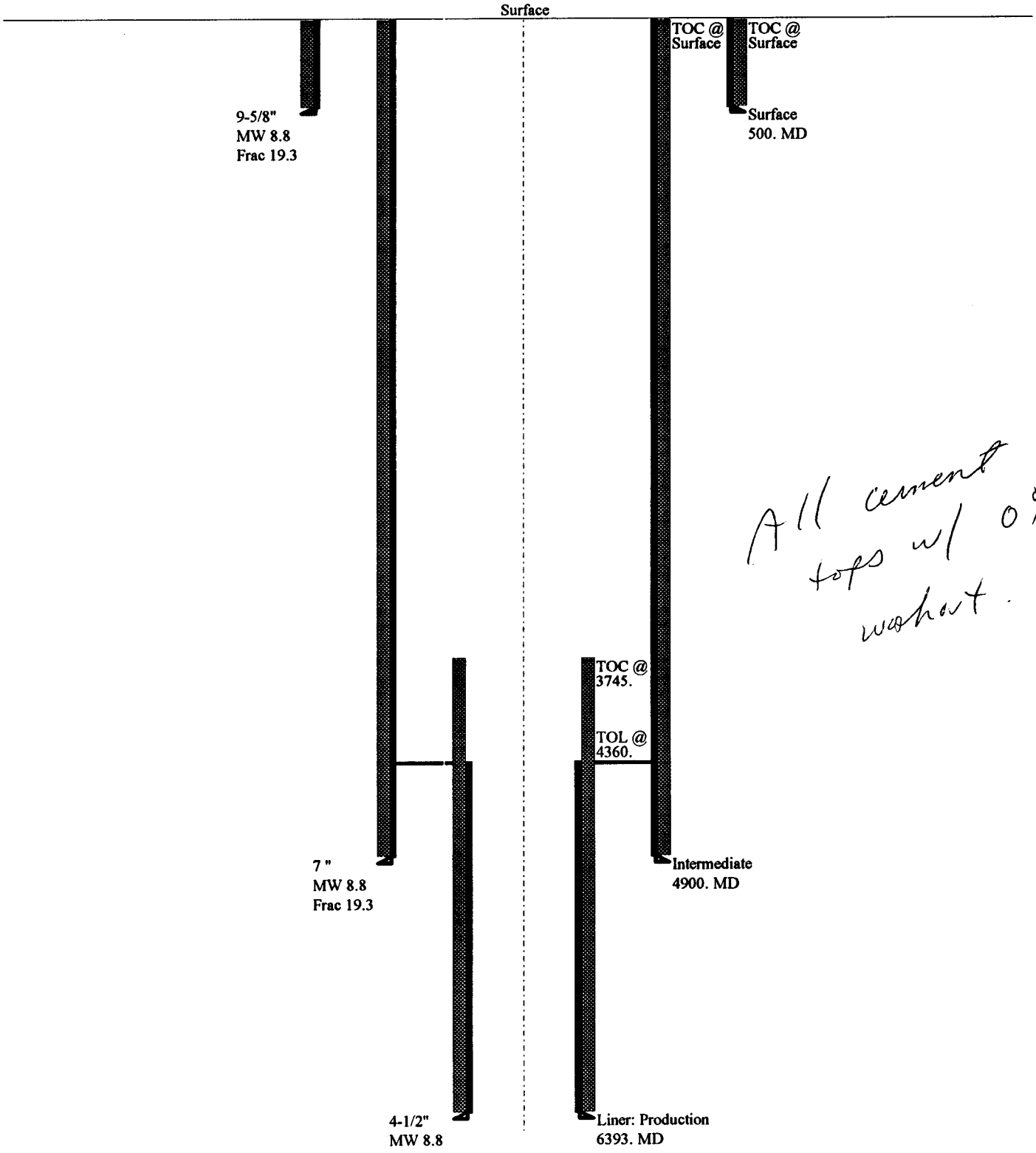
Prepared by: RJK
Department of Natural Resources
Phone:
FAX:
Date: November 3,1998
State of Utah

Engineering Stipulations: Conductor, surface and intermediate casing strings; and, production liner shall be cemented over their entire lengths. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.
For this liner string, the top is rounded to the nearest 100 ft.Collapse is based on a vertical depth of 6393 ft, a mud weight of 8.8 ppg The casing i In addition, burst strength is biaxially adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Conoco Studhorse State 36#1

Casing Schematic



B. Federal

6. UT981007-020 — USDA/Forest Service: Fishlake National Forest - Old Woman Plateau - proposed electronic site. Comments due 11/23/98.

7. UT981014-020 — USDA/Forest Service: Ashley National Forest - Proposed Land and Resource Management Forest Plan - fire management activities. This is not the complete document; if additional information is needed please contact GOPB. Comments due 11/9/98.

8. UT981016-020 — USDA/Forest Service: Dixie National Forest - Marshall Canyon - Water Development - scoping. Comments due 11/10/98.

V. Short Turnaround

Please note! Due to the short turnaro please comment directly to the Agenc with a copy to GOPB.

A. State

9. UT981006-010 — DOGM/Garfield County: Application for Permit to Drill - proposal to drill a wildcat well on state lease ML-45333 (Sec. 32, T34S, R7E) (contact person - John Baza 801/538-5334). Comments due 10/27/98.

10. UT981006-020 — DOGM/Garfield County: Application for Permit to Drill - proposal to drill a wildcat well on state lease ML-45298 (Sec. 36, T33S, R7E). Comments due 10/27/98.

11. UT981019-010 — DOGM/Carbon County: Application for Permit to Drill - proposal to drill a wildcat well, the Utah 32-276, on state lease ML-43209 (Sec. 11/3/98.

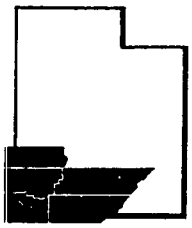
AREAWIDE CLEARINGHOUSE COMMENTS

Conoco, Inc. has applied to the Division of Oil, Gas and Mining to drill two wells on state land in Garfield County. The first, Death Hollow State 32 #1 (ML-45333), is located in Section 32, Township 34 South, Range 7 East. The second well, Studhorse State 36 #1, is located in Section 36, Township 33 South, Range 7 East. The Garfield County Commission has consistently supported the development of natural resources, especially the development of the county's oil and gas potential. With so much of the county under more restrictive federal regulations, it is imperative that the opportunity offered by State Lands, not be wasted. It has therefore been the position of the current County Commission to strongly endorse the development of wildcat wells on state lands so as to "prove-up" potential oil and gas reserves in Garfield County. Recommend approval. (Robert Hugie)

Five County Association of Governments

906 North 1400 West
St. George, Utah 84770

Fax (435) 673-3540



SOUTHWEST UTAH

Post Office Box 1550
St. George, Utah 84771

Office (435) 673-3548

AREAWIDE CLEARINGHOUSE A-95 REVIEW

Type of Action: Pre-Application _____ Notification of Intent __x__ Application ____
Notice of Federal Action ____

Receipt Date 10-06-98 SAI Number _____ ACH Number _____

Applicant Identification, Address
Oil, Gas and Mining
P.O. Box 145801
Salt Lake City, UT 84114-5801

Funding:

Federal	N/A
Supplemental	
State	
Local	
Other	
TOTAL	

Applicant's Project Title:
APPLICATION FOR PERMIT TO DRILL

Description: **Conoco, Inc. proposes to drill the Death Hollow State 32 #1 well (wildcat) on state lease ML-45333, Garfield County, Utah.**

AREAWIDE CLEARINGHOUSE COMMENTS ON PROPOSAL FOR FEDERAL AID

Staff review completed (date): **10-06-98**
Screening Committee review completed (date) **10-14-98**
Executive Board Review Completed (date)
Referred to original for additional information (date)

- ☒ Recommend Approval __x__ Comments (see reverse side of page) __x__
- ☐ Conditionally approved as follows (see reverse side of page) _____
- ☐ Recommend Disapproval _____ Comments (see reverse side of page) _____
- ☒ The project described above (x) does ( ) not conform with the policy or planning of the multijurisdictional area it directly impacts. Additional information ( ) Is (x) Is not needed.
- ☐ We also serve notice that all requirements of the Project Notification and Review System for this multijurisdictional area have been met. Therefore, attach this letter to your application and forward to the federal funding agency.
- ☐ If this project will be a renewal or continuation grant, please submit your application next year to this areawide clearinghouse for re-review 30 days prior to submission to federal funding agency.
- ☐ We would anticipate reviewing final project application 30 days prior to submission for funding.

If any Clearinghouse Comments go unresolved, Federal law requires the Applicant to attach a copy of all negative comments to the project application and forward them both to the Federal Funding Agency(ies).

_____ Authorizing Official

10-14-98 Date

Copy of review sent to applicant

STATE ACTIONS

Mail to:
RDCC Coordinator
116 State Capitol
Salt Lake City, Utah 84114

1. ADMINISTERING STATE AGENCY
OIL, GAS AND MINING
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, Utah 84114-5801

2. STATE APPLICATION IDENTIFIER NUMBER:
(assigned by State Clearinghouse)

3. APPROXIMATE DATE PROJECT WILL START:
Upon Approval

4. AREAWIDE CLEARING HOUSE(s) RECEIVING STATE ACTIONS:
(to be sent out by agency in block 1)
Five Counties Association of Governments

5. TYPE OF ACTION: /_/ Lease /X/ Permit /_/ License /_/ Land Acquisition
/_/ Land Sale /_/ Land Exchange /_/ Other _____

6. TITLE OF PROPOSED ACTION:
Application for Permit to Drill

7. DESCRIPTION:
Conoco, Inc. proposes to drill the Studhorse State 36 #1 well (wildcat) on state leaseML-45298, Garfield County, Utah. This action is being presented to RDCC for consideration of resource issues affecting state interests. The Division of Oil, Gas and Mining is the primary administrative agency in this action and must issue approval before operations commence.

8. LAND AFFECTED (site location map required) (indicate county)
SW/4, NE/4, Section 36, Township 33 South, Range 7 East, Garfield County, Utah

9. HAS THE LOCAL GOVERNMENT(s) BEEN CONTACTED?
No

10. POSSIBLE SIGNIFICANT IMPACTS LIKELY TO OCCUR:
Degree of impact is based on the discovery of oil or gas in commercial quantities.

11. NAME AND PHONE NUMBER OF DISTRICT REPRESENTATIVE FROM YOUR AGENCY NEAR PROJECT SITE, IF APPLICABLE:

12. FOR FURTHER INFORMATION, CONTACT:
John R. Baza
PHONE: 538-5334

13. SIGNATURE AND TITLE OF AUTHORIZED OFFICIAL:
John R. Baza
Associate Director DATE: October 5, 1998

ON-SITE PREDRILL EVALUATION

Division of Oil, Gas and Mining

OPERATOR: Conoco, Inc.

WELL NAME & NUMBER: Studhorse State 36-1

API NUMBER: 43-017-30142

LEASE: State FIELD/UNIT: Wildcat

LOCATION: 1/4,1/4 SWNE Sec: 36 TWP: 33S RNG: 7E 1960 FNL 2237 FEL

LEGAL WELL SITING: _____F SEC. LINE; _____F 1/4,1/4 LINE; _____F ANOTHER WELL.

GPS COORD (UTM): X =492,661; Y =4,194,115

SURFACE OWNER: SITLA

PARTICIPANTS

C. Kierst(DOGM), M. Mankin(Conoco), Stacy Stewart(surveyor)

REGIONAL/LOCAL SETTING & TOPOGRAPHY

Western margin of Colorado Plateau/On the east side of the Circle Cliffs Upwarp, the location is about midway between the Waterpocket Fold and Studhorse Peaks. It is nearly at 6500' of elevation and is on a minor prominence extending eastward with a moderately deep canyon, which drains to Upper Muley Twist Canyon, on the north side. It is ~19 air miles east of Boulder, Utah, and approachable off the Burr Trail. The pad is proposed for an arid, rugged, erosional landscape which generally drains to the east. The surrounding land surface is moderately incised upon Mesozoic sediments.

SURFACE USE PLAN

CURRENT SURFACE USE: Grazing, wildlife habitat

PROPOSED SURFACE DISTURBANCE: 200' X 300' pad with 100' X 175' X 8' deep attached reserve pit and 1 mile of new approach road off an existing access road network.

LOCATION OF EXISTING WELLS WITHIN A 1 MILE RADIUS: None

LOCATION OF PRODUCTION FACILITIES AND PIPELINES: none nearby.

SOURCE OF CONSTRUCTION MATERIAL: Gravel location and approach road with native material from road and site prep; soil stored in berm.

ANCILLARY FACILITIES: none but operator may opt for a camp location.

WASTE MANAGEMENT PLAN:

Portable toilets; garbage cages on location will be emptied into an approved landfill; cuttings will be evaporated and buried in pit.

ENVIRONMENTAL PARAMETERS

AFFECTED FLOODPLAINS AND/OR WETLANDS: none

FLORA/FAUNA: rabbitbrush(?), pinon-juniper/birds, lizards, coyotes, rodents, occasional deer.

SOIL TYPE AND CHARACTERISTICS: Thin, buff, sandy(SM), high permeable soil developed on the Triassic Moenkopi Formation.

SURFACE FORMATION & CHARACTERISTICS: Triassic Moenkopi Formation; tan sandstone.

EROSION/SEDIMENTATION/STABILITY: stable up to the edge of the canyon.

PALEONTOLOGICAL POTENTIAL: None observed (paleo survey will be made).

RESERVE PIT

CHARACTERISTICS: Dugout pit, as above.

LINER REQUIREMENTS (Site Ranking Form attached): Minimum 12 mil synthetic liner

SURFACE RESTORATION/RECLAMATION PLAN

No Surface Agreement yet.

SURFACE AGREEMENT: **No Surface Agreement yet.**

CULTURAL RESOURCES/ARCHAEOLOGY: Archaeology is surveyed and will be filed when report is made available.

OTHER OBSERVATIONS/COMMENTS

Mile-long approach road will have to traverse a Moenkopi Formation

slope in descent to the elevation of the minor prominence.

ATTACHMENTS:

8 photographs taken; order of photos is NESW.

Chris Kierst	9/9/98/ 4:30 PM
DOGM REPRESENTATIVE	DATE/TIME

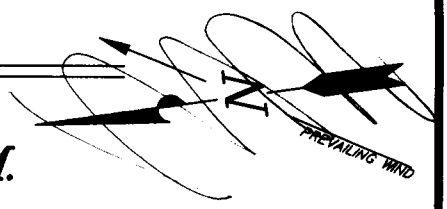
Evaluation Ranking Criteria and Ranking Score
For Reserve and Onsite Pit Liner Requirements

Site-Specific Factors	Ranking	Site Ranking
Distance to Groundwater (feet)		
>200	0	
100 to 200	5	
75 to 100	10	
25 to 75	15	
<25 or recharge area	20	0
Distance to Surf. Water (feet)		
>1000	0	
300 to 1000	2	
200 to 300	10	
100 to 200	15	
< 100	20	0
Distance to Nearest Municipal Well (feet)		
>5280	0	
1320 to 5280	5	
500 to 1320	10	
<500	20	0
Distance to Other Wells (feet)		
>1320	0	
300 to 1320	10	
<300	20	0
Native Soil Type		
Low permeability	0	
Mod. permeability	10	
High permeability	20	20
Fluid Type		
Air/mist	0	
Fresh Water	5	
TDS >5000 and <10000	10	
TDS >10000 or Oil Base Mud Fluid containing significant levels of hazardous constituents	15 20	0
Drill Cuttings		
Normal Rock	0	
Salt or detrimental	10	10
Annual Precipitation (inches)		
<10	0	
10 to 20	5	
>20	10	0
Affected Populations		
<10	0	
10 to 30	6	
30 to 50	8	
>50	10	0
Presence of Nearby Utility Conduits		
Not Present	0	
Unknown	10	
Present	15	0

Final Score 30 (Level I Sensitivity)

CONOCO, INC.

WELL SEC. 36
SEC. 36, T33S, R7E, S.L.B.&M.



F/1.0

Proposed Access Road

C/8.0

C/7.5

C/10.0

2

3

4

A

STA. 3+00

TOPSOIL STOCKPILE

150'

RESERVE PIT
175' X 100'
8' DEEP

175'

STA. 2+00

C/2.0

1

150'

C/0.5

50'

STA. 1+50

25'

C

100'

B

C/2.2

C/6.6

WELL HEAD:
UNGRADED = 6498.4'
FIN. GRADE = 6497.9'

Top of Cut Slope

blooie pit

WASTE MATERIAL

150'

125'

STA. 0+00

8

7

6

F/12.3

Toe of Fill Slope

F/1.0

GRADE

SURVEYED BY:	D.S.
DRAWN BY:	J.R.S.
DATE:	9-7-98
SCALE:	1" = 50'
FILE:	

REFERENCE POINTS

200' EAST = 6498.9'
250' EAST = 6494.9'

Tri State
Land Surveying. Inc.
(801) 781-2501
38 WEST 100 NORTH VERNAL, UTAH 84078

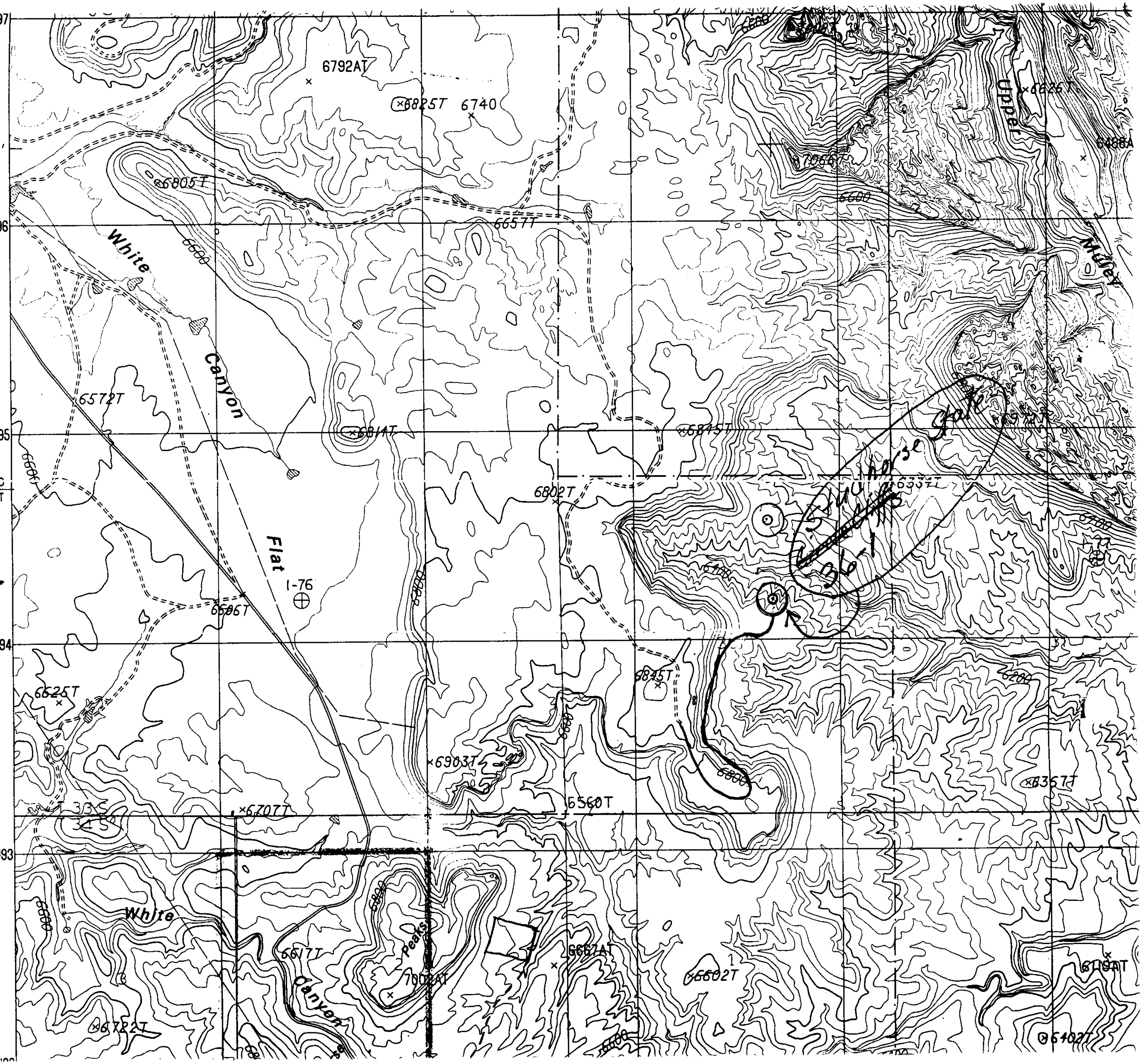
Bitter Creek Divide
7.5 minute quad

S.36,T33S,R7E

1960 FEL, 2237 FNL

T33S

T34S



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

Michael O. Leavitt
Governor

Lowell P. Braxton
Division Director

November 3, 1998

Conoco, Inc.
10 Desta Drive, Suite 430E
Midland, Texas 79705-4500

Re: Studhorse State 36 #1 Well, 2237' FNL, 1960' FEL, SW NE, Sec. 36, T. 33 S., R. 7 E., Garfield County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. 40-6-1 et seq., Utah Administrative Code R649-3-1 et seq., and the attached Conditions of Approval, approval to drill the referenced well is granted.

Appropriate information has been submitted to DOGM by the operator and administrative approval of the requested exception location is hereby granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-017-30142.

Sincerely,

John R. Baza
Associate Director

lwp
Enclosures
cc: Garfield County Assessor
Bureau of Land Management, Cedar City Field Office

Operator: Conoco, Inc.

Well Name & Number: Studhorse State 36 #1

API Number: 43-017-30142

Lease: State **Surface Owner:** State

Location: SW NE **Sec.** 36 **T.** 33 S. **R.** 7 E.

Conditions of Approval

1. General
   Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for Permit to Drill.

2. Notification Requirements
   Notify the Division of the following actions during drilling of this well:
   - 24 hours prior to cementing or testing casing
   - 24 hours prior to testing blowout prevention equipment
   - 24 hours prior to spudding the well
   - within 24 hours of any emergency changes made to the approved drilling program
   - prior to commencing operations to plug and abandon the well

   Division contacts (please leave a voice mail message if person is not available to take the call):
   - Dan Jarvis at (801) 538-5338
   - Robert Krueger at (801) 538-5274 (plugging)
   - Carol Daniels at (801) 538-5284 (spud)

3. Reporting Requirements
   All required reports, forms and submittals shall be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Michael O. Leavitt
Governor
Brad T. Barber
State Planning Coordinator
James L. Dykmann
Committee Chairman
John A. Harja
Executive Director

State of Utah

GOVERNOR'S OFFICE OF PLANNING AND BUDGET
Resource Development Coordinating Committee

116 State Capitol Building
Salt Lake City, Utah 84114
(801) 538-1027
Fax: (801) 538-1547

November 9, 1998

John Baza
Division of Oil, Gas & Mining
1594 West North Temple, Suite 1210
Salt Lake City, Utah 84114-5801

CONFIDENTIAL

SUBJECT: Application for permit to drill wildcat well on State lease
ML45298 Sec. 36, T. 33S, R. 7E 43-017-30142
State Identification Number: UT981006-020
Studhorse St. 36 #1

Dear Mr. Baza:

The Resource Development Coordinating Committee (RDCC), representing the State of Utah, has reviewed this proposal. The Division of State History comments:

> After review of the material provided, the Utah Preservation Office recommends that there would be **No Effect** upon cultural resources by the project.
>
> If you have questions, please contact Jim Dykmann at (801) 533-3555 (Please refer to Case No. 98-1317).

The Committee appreciates the opportunity to review this proposal. Please direct any other written questions regarding this correspondence to the Utah State Clearinghouse at the above address or call Carolyn Wright at (801) 538-1535 or John Harja at (801) 538-1559.

Sincerely,

for Brad T. Barber
State Planning Coordinator

BTB/ar

From: Teresa Thompson <t3thomps@ut.blm.gov>
To: NRDOMAIN.NROGM(JBAZA)
Date: Wed, Feb 3, 1999 10:47 AM
Subject: Conoco Well Files

CONFIDENTIAL

John,

As you are aware, the State Land Exchange was approved on January 7, 1999. Under this exchange, the Conoco Wells: Stud Horse Peaks #1-36 (UTU78085), Death Hollow #1-32 (UTU78077) and Smokey Mountain State 36 #1 (UTU78054) are located on Federal lands. We would appreciate copies of the three wells approved by your Division for our records. We understand that these files have been requested to be held confidential and all information will be held confidential.

Thank you for your assistance.

43 017 30142
33S 07E 36
CONFIDENTIAL

From: John Baza
To: Vicky Dyson
Date: Wed, Feb 3, 1999 10:56 AM
Subject: Fwd: Conoco Well Files

Vicky,

I feel that the attached e-mail from the BLM handles our concerns about well confidentiality for the referenced wells. At this point, I have no problem with Jim copying the files and delivering them to the BLM. You should copy the e-mail from the BLM and place it in the referenced well files for documentation.

Thanks,
JRB

CC: Brad Hill, Gil Hunt, Jim Thompson, Lisha Cordov...

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Utah State Office
P.O. Box 45155
Salt Lake City, UT 84145-0155

DOGM 'LA' DATE

RECEIVED
DEC - 6 1999
DIVISION OF OIL, GAS & MINING

IN REPLY REFER TO:
3162.3
(U-931)

December 2, 1999

CERTIFIED MAIL - Return Receipt Requested

Conoco Inc.
10 Desta Dr. Suite 100W
Midland, TX 79705-4500

Re: Smoky Mountain State 36-1 (43-025-30031)
NE¼SE¼, Sec. 36, T. 40 S., R. 3 E., SLB
Kane County, Utah
Lease UTU-78054 (ML-45707)

Studhorse State 36-1 (43-017-30142) *
SW¼NE¼, Sec. 36, T. 33 S., R. 7 E., SLB
Garfield County, Utah
Lease UTU-78085(ML-45298)

Death Hollow State 32-1 (43-017-30141)
NE¼NE¼, Sec. 32, T. 34 S., R. 7 E., SLB
Garfield County, Utah
Lease UTU-78077 (ML-45333)

Gentlemen:

With the Utah Schools and Lands Exchange Act of 1998 (Public Law 105-335), the administration of the Applications for Permit to Drill (APDs) for the referenced wells now falls within the regulatory authority of the Bureau of Land Management (BLM). The Smoky Mountain State 36-1 APD was approved by the State of Utah, Division of Oil, Gas and Mining (DOGM) on September 10, 1998, and the Studhorse State 36-1 and the Death Hollow State 32-1 APDs on November 3, 1998. Each approval contained the following provision:

> "This approval shall expire one year from the [approval date] unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date."

No requests for extensions of time were received, and no known activity has transpired at the approved locations. Therefore, approval of these referenced applications expired effective the end of their respective one-year periods. If you intend to drill at any of these locations at a future date, new APDs must be submitted.

Sincerely,

/s/ Robert A. Bennett

for Sally Wisely
State Director

cc: Utah DOGM

bcc: Well Files (3)
McKee
Thayn
U-932
GSENM (Attn: Doug Powell)

AmcKee:jt:12/2/99
McKee\Rescind2